

# Wollongong Local Planning Panel Assessment Report | 1 December 2020

<b>WLPP No.</b>	Item No. 5
<b>DA No.</b>	RD-2019/1268/A
<b>Proposal</b>	Residential - demolition of outbuildings, Subdivision - Torrens title - two (2) lots, alterations to existing dwelling and construction of attached dual occupancy and Subdivision - Strata title - two (2) lots of proposed Lot 212
<b>Property</b>	8A Kembla Street, BALGOWNIE
<b>Applicant</b>	SRP Design & Drafting Pty Ltd
<b>Responsible Team</b>	Development Assessment and Certification - City Centre Major Development Team
<b>Development cost</b>	\$605,000
<b>Lodgement date</b>	22 August 2020
<b>Prior WLPP meeting</b>	NA

## ASSESSMENT REPORT AND RECOMMENDATION

### Executive Summary

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#### Reason for consideration by Local Planning Panel

The proposal has been referred to Local Planning Panel for advice pursuant to clause 2.19(1)(a) of the Environmental Planning and Assessment Act 1979. Under Schedule 2 of the Local Planning Panels Direction of 30 June 2020 and the Wollongong Local Planning Panel Submissions draft policy, the proposal is categorised as contentious development as it is a Section 8.2 Review of Determination and received 5 or more unique submissions during notification.

#### Proposal

The proposal is for the demolition of several outbuildings, tree removal, torrens title subdivision of Lot 21 DP 524543 to create Lots 211 and 212, alterations to existing dwelling, construction of attached dual occupancy and strata subdivision of proposed Lot 212.

#### Permissibility

The site is zoned R2 Low Density Residential pursuant to Wollongong Local Environmental Plan 2009. The proposal is categorised as a torrens title subdivision, dual occupancy (attached) and strata title subdivision and is permissible in the zone with development consent.

#### Consultation

The proposal was notified in accordance with Council's Notification Policy and received 7 submissions which are discussed at section 2.9 of the assessment report.

#### Main Issues

The main issues are:

- i. Number of submissions
- ii. 2 storey development on a battle-axe lot.
- iii. Landscaped area behind the building line.
- iv. Tree removal.

## RECOMMENDATION

It is recommended that the application be approved.

## 1 APPLICATION OVERVIEW

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### 1.1 DETAILED DESCRIPTION OF PROPOSAL

The proposal is for the demolition of several outbuildings, tree removal, torrens title subdivision of Lot 21 DP 524543 to create Lots 211 and 212, alterations to existing dwelling, construction of attached dual occupancy and strata subdivision of proposed Lot 212.

#### Demolition

- Demolition of carport, awning, garage and studio.

#### Tree Removal

- Removal of 3 trees located toward the rear of the lot (numbered 11, 12 and 13 in Arboricultural Report).

#### Alterations and Additions to Existing Dwelling

- Garage to be reinstated (currently used as rumpus room). Glass sliding door to be replaced with sectional panel lift door.
- Turning bay provided within front setback.

#### Torrens Title Subdivision

- Two (2) lot torrens title subdivision of Lot 21 DP 524543 to create:
  - o Lot 211 – 499.66m<sup>2</sup> (24.201/25.899 x 19.95/20.027) - Frontage to Kembla Street.
  - o Lot 212 – 476.55m<sup>2</sup> (23.679/47.8 x 21.035/19.95) - Battleaxe lot
  - o 1.003m wide Access handle provided along northern boundary
  - o Right of Carriageway, Easement for Drainage and Easement for Services provided across Lots 211 & 212.

#### Dual Occupancy

- Attached 2 storey dual occupancy – side by side arrangement.
- 3 Bedroom, single garage, bedroom & bathroom provided on first floor.

#### Strata Subdivision

- Strata subdivision of lot 212 / dual occupancy to create lots 212A & 212B.

### 1.1 BACKGROUND

On 25 March 2020, the NSW Government introduced the COVID-19 Legislation Amendment (Emergency Measures) Bill 2020, which made changes to the Environmental Planning and Assessment Act 1979. Appeal periods for merit appeals to the courts have been increased from 6 months to 12 months to provide more flexibility for applicants and the community.

The original DA was refused on 3 April 2020 and the application must be determined prior to 3 April 2021, in accordance with section 8.2-8.5 of the EPA Act 1979. The current application involves amendments to the design, however, remains substantially the same development.

#### Refusal

The reasons for the refusal of the development are listed below:

- 1 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan 2009 with respect to the design, height and

*siting of the development responding adequately to its site context taking into account both natural and built form features of that locality, as required by clause 4.8 of Chapter B1 Residential Development.*

**Comment:**

The development has been amended to address design, height and siting issues as follows:

- First floor further integrated into overall roof form and overall bulk reduced.
- Reduced the overall height from 7.62m to 6.217m and is no longer visible above the existing dwelling.
- FSR of Lot 212 reduced from 0.493:1 to 0.45:1.
- Sited to incorporate compliant deep soil zone.

See further assessment under Clause 4.8 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 2 *Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan No 2009 with respect to solar access to the clothesline of Unit 2, as required by clause 4.12 of Chapter B1 Residential Development.*

**Comment:**

The clothesline for unit 2 has been relocated to a more appropriate location and will receive direct sunlight between 12pm and 3pm during the winter solstice.

See further assessment at Clause 4.12 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 3 *Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan 2009 with respect to the deep soil zone requirements of clause 4.23 of Chapter B1 Residential Development.*

**Comment:**

The development has been redesigned to accommodate a compliant deep soil zone at the rear of lot 212.

See further assessment at Clause 4.23 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 4 *Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan No 2009 with respect to minimum 50% of the landscaped area of Lot 211 behind the building line, as required by Clause 4.5 of Chapter B1 Residential Development.*

**Comment:**

The development has been redesigned to incorporate increased landscaped area generally and behind the building line of lot 211.

Whilst the development does not technically comply with the required 50%, the variation has been adequately justified. It is largely the result of an increased front setback and existing improvements located in the backyard of the subject dwelling (pool, paved area etc). No adverse impact arises from the variation.

See further assessment at Clause 4.5 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 5 *Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development fails to satisfy the objectives of clause 4.1 Chapter B1 Residential Development Wollongong City Council's Development Control Plan No 2009.*

**Comment:**

Clause 4.1 requires that dwellings on battle-axe blocks are limited to single storey unless the objectives of this part are achieved. The development has been redesigned to further integrate the first floor into the roof form and overall bulk has been reduced. The overall height has been reduced from 7.62m to 6.217m and is no longer visible above the existing dwelling. The first floor does not introduce any non-compliances regarding privacy, solar access or visual amenity.

See further assessment at Clause 4.1 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 6 *Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, the proposed development fails to demonstrate that the proposed right of carriageway between Lots 211 and 212 adequately encompasses the vehicle path between the allotments.*

**Comment:**

The proposed subdivision plan has been amended to allow for right of carriageway for access to the garages of the proposed dual occupancy. Each garage will have right of access across the front of the other unit to facilitate manoeuvring to exit the site in a forward direction.

See further assessment at Chapters B1 & E3 of WDCP 2009 section of this report of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed.

- 7 *Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development would have an adverse impact upon the visual amenity of neighbouring properties as a result of the additional building height and bulk created by the habitable upper level in Units 1 and 2.*
- 8 *Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is excessive in terms of the dual occupancy roof bulk and would adversely impact upon the amenity of neighbouring properties.*

**Comment (reasons 7 & 8):**

The development has been redesigned to further integrated the first floor into overall roof form and overall bulk reduced. The overall height has been reduced from 7.62m to 6.217m and is no longer visible above the existing dwelling. The first floor element does not significantly compromise the visual amenity of neighbouring dwellings compared with that expected of a single storey dwelling in this location.

See further assessment at Clause 4.8 & 4.16 of Chapter B1 Residential Development of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed

- 9 *Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development would have an adverse impact upon the environment with respect to removal of trees 11 and 12 and fragmentation of the required deep soil zone. Trees 11 and 12 are proposed to be removed, despite the Allied Tree Consultancy report dated October 2019 concluding they are not be adversely impacted by the design. Removal of these trees contributes to loss of vegetation in an area appropriate for planting as a deep soil zone.*

**Comment:**

The development has been redesigned to accommodate a compliant deep soil zone at the rear of lot 212.

The proposed deep soil is supplemented by a planting schedule which recommends appropriate species for this location. Furthermore, the arboricultural report noted that trees 11 and 12 were of low importance.

Council's Landscape Architect has assessed the Landscape Concept Plan and arborist report and found the proposed removal and compensatory planting to be acceptable.

See further assessment at Chapter E17 Preservation and Management of Trees and Vegetation of WDCP 2009 section of this report.

This reason for refusal has been satisfactorily addressed

- 10 *Pursuant to the provisions of Section 4.15 (1)(c) of the Environmental Planning and Assessment Act 1979, it is considered that the development site is not suitable for the proposed development due to proposed fragmentation of the deep soil zone, tree removal and upper level of the dual occupancy.*

**Comment:**

The development has been redesigned to reduce the height and bulk of the first floor, provided compliant deep soil area and adequately justified the tree removal. The site has been demonstrated to be suitable for the proposed development.

This reason for refusal has been satisfactorily addressed

- 11 *Pursuant to the provisions of Section 4.15 (1)(d) of the Environmental Planning and Assessment Act 1979, it is considered that having regard for public submissions, the development is unsuitable with respect to the right of carriageway, tree removal, upper level of the proposed dual occupancy and fragmentation of the deep soil zone.*

**Comment:**

These matters have been discussed previously and submissions discussed further at Section 1.3 of this report.

This reason for refusal has been satisfactorily addressed

- 12 *Pursuant to the provisions of Section 4.15 (1)(e) of the Environmental Planning and Assessment Act 1979 it is considered that in the circumstances of the case, approval of the development would set an undesirable precedent for similar inappropriate development and is therefore not in the public interest.*

**Comment:**

The development has been redesigned address the reasons for refusal, thereby addressing the matter of the development being inappropriate and not in the public interest.

This reason for refusal has been satisfactorily addressed

### Prelodgement Meeting

A pre-lodgement meeting (PL-2019/115) was held in August 2019. The proposal presented to Council was very similar to that proposed in the original application. Council advised the applicant that the following aspects of PL-2019/115 were not supported:

- Overdevelopment of the site
- Locating deep soil zone in front lot is not supported. DSZ must be provided on rear lot (the dual occupancy) in accordance with dual occupancy requirements.
- Having parking in front setback of front lot is not supported. Parking should be relocated to the rear of the existing dwelling.
- Two storey element on rear lot is potentially unsupportable.

The design submitted for this review has adequately addressed these matters.

### Customer service actions

There are no outstanding customer service requests of relevance to the development.

## **1.2 SITE DESCRIPTION**

The site is located at 8A Kembla Street Balgownie and the title reference is Lot 21 DP 524543. The land is 999.06m<sup>2</sup> (by title).

The site is rectangular in shape with a fall to Kembla Street. Existing ground levels at the rear boundary are RL 38.25 and RL 35.12 at the front boundary.

The land currently contains a split level dwelling house, with internal garage currently being used as a habitable room (unauthorised). The application involves internal alterations to return the garage to a vehicle parking use.

The site is zoned R2 Low Density Residential and the surrounding area is characterised by single and 2 storey dwellings of relatively low density and of similar scale to that which is proposed.

Adjoining development consists of:

- North: 8 Kembla Street- single storey weatherboard dwelling house and 1 Elsie Court - single storey brick dwelling house
- South (10 Kembla Street): two (2) storey townhouse complex of four units
- West: Kembla Street - two-storey/split level dwelling house and 5A Kembla Street - two-storey/split level dwelling house
- Elsie Court: one or two storey dwelling houses

An aerial photo of the site and land zoning map form Attachments 1 & 2.

### Property constraints

Council records identify the land as being impacted by the following constraints:

- Flooding: The site is identified as being located within an uncategorised flood risk precinct. Council's Stormwater Officer has reviewed the application in this regard providing a satisfactory referral subject to conditions.

There are no restrictions on the title that would preclude the proposal.

### 1.3 SUBMISSIONS

The application was notified in accordance with Council's Community Participation Plan 2019. 7 submissions were received, and the issues identified are discussed below.

**Table 1: Submissions**

Concern	Comment
1. The development has not been amended significantly to address reasons for refusal.	<p>The development has been redesigned to reduce the height and bulk of the first floor, provided compliant deep soil area and adequately justified the tree removal.</p> <p>The specific reasons for refusal have been discussed in the Background section of this report.</p>
2. Reduction in solar access to properties located to west and south.	<p>The approved plans of neighbouring dwelling and shadow diagrams have been reviewed.</p> <p>The development will not compromise neighbouring dwelling's ability to receive the minimum solar access required by Chapter B1 of the WDCP 2009.</p> <p>See further discussion at Chapter B1 WDCP 2009 section of this report.</p>
3. Object to increased density and overdevelopment.	<p>The development is permitted in the R2 Low Density Residential zone and complies with the maximum height, floor space ratio and minimum lot size requirements of the WLEP 2009.</p> <p>Furthermore, the proposal does not propose variation to WDCP 2009 controls with regard to setbacks or site coverage.</p>
4. Insufficient parking provided and general traffic impacts.	<p>Parking, driveway and manoeuvring areas have been provided in accordance with the requirements of Chapters B1 &amp; E3 of the WDCP 2009.</p> <p>Regarding the existing dwelling, an additional car space has been provided.</p>
5. Fire Hazard due to proximity to boundary.	<p>The building setbacks are compliant with WDCP 2009 and relevant BCA provisions.</p> <p>The development does not raise concerns with regard to fire safety.</p>
6. Concern over stormwater management and impacts.	<p>A Stormwater Concept Plan and flood study have been provided and satisfied the requirements of Chapters E13 &amp; E14 of the WDCP 2009.</p> <p>Council's Development Engineer has reviewed the proposal and found it satisfactory with regard to stormwater and flooding.</p>
7. Object to general overdevelopment of Balgownie.	<p>This assessment is limited to the subject development.</p> <p>Notwithstanding, the proposed density, land use and subdivision are permitted under the WLEP 2009.</p>

Concern	Comment
8. Visibility of roof to neighbours and related glare & reflected heat impacts.	<p>The visibility of the roof is largely dictated by the topography and the density of development of the surrounding area.</p> <p>Specific impacts are not attributed to this particular design and may occur should this site be developed for any purpose that requires a roof.</p> <p>The development consent will contain a condition requiring a materials schedule be provided at the construction certificate stage, confirming the roof materials are an appropriate colour and material to mitigate reflectivity, so far as practical.</p> <p>Once mature, DSZ planting may mitigate any perceived impact.</p>
9. Acoustic impact attributed to Rainwater tank.	<p>The rainwater tank is a requirement of the BASIX certificate.</p> <p>The consent will contain a condition seeking to mitigate acoustic impact of rainwater tank pump.</p>
10. Potential malodorous impact attributed to bin area.	<p>Bins are typically located toward the side and rear of dwellings which naturally brings them into potential conflict with neighbours.</p> <p>Any ongoing issue would be a civil matter and not a consideration in this assessment.</p>
11. Adverse Impact on Property values.	<p>Noted, however not a matter for consideration under s.4.15 of the EPA Act 1979.</p>
12. Visual impact of driveway and turning bay located in front setback.	<p>The presence of the paved turning bay and related visual impact has been considered on balance with the resultant safety improvements also considered. It was recommended by Council's Development Engineer that the turning bay be retained rather than permit vehicles to reverse into the roadway.</p> <p>There is significant landscaping proposed (and existing) within the front setback that will soften the appearance of driveway.</p>
13. Enforcement of Landscape Plan to preserve privacy.	<p>The development consent will contain several conditions of consent enforcing the implementation and maintenance of the landscape concept plan.</p>
14. Construction impacts on retaining wall structures on properties to west & south.	<p>The development consent will contain conditions regarding protection of existing retaining walls and neighbouring structures.</p>
15. Applicant has not specifically addressed refusal reasons.	<p>The applicant submitted a statement addressing the substance of the reasons for refusal. The specific reasons have been discussed in the Background section of this report.</p>

Concern	Comment
16. Object to removal of mature trees.	<p>An arboricultural report has been submitted with the which has classified these trees as low or medium significance.</p> <p>Appropriate compensatory planting has been proposed which has been reviewed by Council's Landscape Architect and found to be satisfactory.</p>
17. Solar access of unit 1 of dual occupancy.	Living and POS areas of Unit 1 have largely dual orientation to western and northern sun. Adequate solar access has been provided.
18. Location of Bins and clothesline block path.	The proposed building setbacks are compliant, and it will be at the discretion of the resident to ensure a clear path is available.
19. Concern over veracity of rumpus / garage conversion of the existing dwelling.	The development consent will contain a condition requiring the conversion be completed prior to the issue of the occupation certificate.
20. Impact on views through the site.	<p>Due to the topography of the site and surrounding area the building sits lower than surrounding dwellings.</p> <p>A view sharing analysis has not been provided, and the specific view impacts referenced in the submission are not outlined. Views through a development site are not protected under planning controls where significant views have not been identified.</p>
21. The development does not "enhance" the local area.	<p>The dual occupancy has been reduced in height and scale so that it will not be visible above the existing dwelling from the public domain.</p> <p>The type and scale of the development is permitted at this location and is not anticipated to have significant impact on the amenity of the local area.</p>
22. Detrimental impact on "open space".	The development complies with all "open space" related planning controls, including but not limited to; building setbacks, private open space, site coverage and landscaped area.
23. New landscaping will impact natural light available to neighbouring dwellings.	Considering the difference in ground levels between the subject & adjoining sites and proposed species to be planted, any significant impact on access to light due to landscaping is unlikely.

## 1.4 CONSULTATION

### 1.4.1 INTERNAL CONSULTATION

#### Landscape Architect

Council's Landscape Officer has reviewed the application and given a satisfactory referral. Conditions of consent were recommended and are included in the consent.

## Development Engineering Officer

The application has been assessed in regard to traffic, stormwater and subdivision matters and found to be satisfactory. Conditions of consent were recommended and are included in the consent.

### 1.4.2 EXTERNAL CONSULTATION

None required

## 2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

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### 1.7 Application of Part 7 of Biodiversity Conservation Act 2016 and Part 7A of Fisheries Management Act 1994

This Act has effect subject to the provisions of Part 7 of the Biodiversity Conservation Act 2016 and Part 7A of the Fisheries Management Act 1994 that relate to the operation of this Act in connection with the terrestrial and aquatic environment.

#### NSW BIODIVERSITY CONSERVATION ACT 2016

The proposal does not trigger the requirement for a biodiversity offset scheme.

The site is not identified as being of high biodiversity value on the Biodiversity Values Map.

### 2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

#### 2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

##### 7 Contamination and remediation to be considered in determining development application

- (1) A consent authority must not consent to the carrying out of any development on land unless—
- (a) it has considered whether the land is contaminated, and
  - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
  - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.
- (2) Before determining an application for consent to carry out development that would involve a change of use on any of the land specified in subclause (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land planning guidelines.
- (3) The applicant for development consent must carry out the investigation required by subclause (2) and must provide a report on it to the consent authority. The consent authority may require the applicant to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation.
- (4) The land concerned is—
- (a) land that is within an investigation area,
  - (b) land on which development for a purpose referred to in Table 1 to the contaminated land planning guidelines is being, or is known to have been, carried out,
  - (c) to the extent to which it is proposed to carry out development on it for residential, educational, recreational or child care purposes, or for the purposes of a hospital—land—

- (i) *in relation to which there is no knowledge (or incomplete knowledge) as to whether development for a purpose referred to in Table 1 to the contaminated land planning guidelines has been carried out, and*
- (ii) *on which it would have been lawful to carry out such development during any period in respect of which there is no knowledge (or incomplete knowledge).*

Council records do not list the site as contaminated land. Council records, including aerial photos indicate the site has been used for residential purposes since the 1970s. The application does not represent a change in use. The application is satisfactory with regard to clause 7 of the SEPP.

#### 2.1.2 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

The proposal is BASIX affected development to which this policy applies. In accordance with Schedule 1, Part 1, 2A of the Environmental Planning and Assessment Regulation 2000, a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

The BASIX certificate was issued no earlier than 3 months before the date on which the original development application was lodged.

The changes to the design of the dual occupancy do not compromise compliance with BASIX targets. Furthermore, any consent issued will be conditioned to require that a valid BASIX certificate is issued and targets satisfied.

#### 2.1.3 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

##### Clause 1.4 Definitions

**dual occupancy** means a dual occupancy (attached) or a dual occupancy (detached).

##### **Note—**

Dual occupancies are a type of **residential accommodation**—see the definition of that term in this Dictionary.

**dual occupancy (attached)** means 2 dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling.

##### **Note—**

Dual occupancies (attached) are a type of **dual occupancy**—see the definition of that term in this Dictionary.

##### **Subdivision (from Part 6 of EPA Act 1979)**

#### **6.2 Meaning of “subdivision” of land**

(cf previous s 4B)

(1) For the purposes of this Act, **subdivision** of land means the division of land into 2 or more parts that, after the division, would be obviously adapted for separate occupation, use or disposition. The division may (but need not) be effected—

- (a) by conveyance, transfer or partition, or
- (b) by any agreement, dealing, plan or instrument rendering different parts of the land available for separate occupation, use or disposition.

(2) Without limiting subsection (1), **subdivision** of land includes the procuring of the registration in the office of the Registrar-General of—

- (a) a plan of subdivision within the meaning of section 195 of the Conveyancing Act 1919, or
- (b) a strata plan or a strata plan of subdivision within the meaning of the Strata Schemes Development Act 2015.

#### **Note—**

The definition of **plan of subdivision** in section 195 of the Conveyancing Act 1919 extends to plans of subdivision for lease purposes (within the meaning of section 23H of that Act) and to various kinds of plan under the Community Land Development Act 1989.

#### **Part 2 Permitted or prohibited development**

##### Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned R2 Low Density Residential.

##### Clause 2.3 – Zone objectives and land use table

The objectives of the zone are as follows:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

The proposal is satisfactory with regard to the above objectives.

The land use table permits the following uses in the zone.

*Attached dwellings; Bed and breakfast accommodation; Boarding houses; Boat launching ramps; Centre-based child care facilities; Community facilities; **Dual occupancies**; Dwelling houses; Environmental facilities; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Home-based child care; Hospitals; Hostels; Information and education facilities; Jetties; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Residential flat buildings; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Shop top housing; Signage; Tank-based aquaculture; Veterinary hospitals*

The proposal is categorised as a torrens title subdivision, dual occupancy and strata title subdivision as defined above and is permissible in the zone with development consent.

##### Clause 2.6 Subdivision – consent requirements

Consent is sought for Torrens subdivision and strata subdivision of the dual occupancy development under this clause.

##### Clause 2.7 Demolition requires development consent

The demolition of a building or work may be carried out only with development consent.

#### **Part 4 Principal development standards**

##### Clause 4.1 Minimum subdivision lot size

Minimum subdivision lot size: 449mm<sup>2</sup>

Proposed lot size exceeds minimum, as follows:

- Lot 211- 499.66m<sup>2</sup>
- Lot 212: 478.55 (excl. lot handle)

##### Clause 4.3 Height of buildings

No change to the existing dwelling.

The proposed building height of 6.217m does not exceed the maximum of 9m permitted for the site.

##### Clause 4.4 Floor space ratio

Maximum FSR permitted for the zone: 0.5:1

Site area – Lot 211:	499.66m <sup>2</sup>
GFA:	124.31
FSR:	0.25:1
Site area – Lot 212:	478.55m <sup>2</sup> (excluding access handle)
GFA:	216.74
FSR:	0.45:1

## **Part 7 Local provisions – general**

### Clause 7.1 Public utility infrastructure

A condition will be imposed upon the development consent requiring approval from the relevant authorities for the connection of electricity, water and sewage to service the site.

### Clause 7.3 Flood planning area

The site is classified as 'Flood Affected-Uncategorised Flood Risk Precinct'.

The applicant has provided a Flood Report, prepared by 'Westlake Punnet', which claims the site is not affected by floodwaters due the implementation and construction of an overflow path that was constructed as part of the development 5 and 5A Elsie Court, which diverts overland flows from up-catchment lots.

The report and development have been reviewed by Council's Development Engineer who confirmed the development is satisfactory with regard to the provisions of Clause 7.3 and recommended appropriate conditions of consent.

### Clause 7.6 Earthworks

The proposal requires earthworks to enable the constriction of the dwellings, driveways and drainage infrastructure. The earthworks are not expected to have a detrimental impact on environmental functions and processes, neighbouring uses or heritage items and features surrounding land.

## **2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT**

NA

## **2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN**

### **2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009**

WDCP 2009 Compliance tables are listed at attachment 6.

The justification of variations to development controls and general discussion are provided below.

## **CHAPTER A1 – INTRODUCTION**

### **8 Variations to development controls in the DCP**

#### **ISSUE: NUMBER OF STOREYS**

##### *(a) The control being varied;*

Chapter B1 – 4.1.2 – (1) Dwelling houses on battleaxe allotments are restricted to 1 storey unless it can be demonstrated that the proposed development achieves the objectives in Clause 4.1.1 and complies with the maximum height maps in the LEP.

*(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested; and*

Each unit in the proposed dual occupancy includes a centrally located 25m<sup>2</sup> GFA first floor element. The first floor includes 1 bedroom with ensuite. The maximum height of the building is 6.217m (RL 42.489m AHD), the maximum height allowed by the WLEP 2009 is 9m

The applicant has claimed the area is 'habitable roof space'. However, the overall roof form has been significantly modified to enable the first floor and includes vertical clad sections of wall on the northern & southern elevations to enable 2.44m ceiling heights on the first floor.

The DCP defines 'Habitable Roof Space': as "space within the roof of a building which can be used for residential purposes, where the height of the building does not exceed the ridge height specified in the height table."

As the first floor is not habitable roof space, and therefore a variation is necessary.

*(c) Demonstrate how the objectives are met with the proposed variations; and*

The objectives of the control include;

- a) To encourage buildings which integrate within the streetscape and the natural setting whilst maintaining the visual amenity of the area.*

The dual occupancy will not be visible above the existing (front) dwelling from the street.

The topography of the site and surrounds results in the dual occupancy sitting at a lower level than all surrounding buildings. The ridgeline of the development will be at a comparable height or below that of surrounding buildings.

Whilst the building will be visible from surrounding properties, it will not dominate the skyline or compromise significant views, thereby maintaining the visual amenity of the area.

- b) To minimise the potential for overlooking on adjacent dwellings and open space areas.*

There are no balconies or windows on the side and rear elevation of the first floor proposed.

Bedroom windows on the eastern elevation, which face the existing dwelling (proposed lot 211) have a sill height of 1.2m and are setback 6.8m from the shared boundary. A 1.8m fence, with additional 600mm lattice, is proposed on this boundary in addition to an adjoining landscape bed.

The first floor is unlikely to result in significant opportunities for overlooking.

- c) To ensure that development is sympathetic to and addresses site constraints.*

There are no significant site constraints related to the addition of the first floor.

- d) To encourage split level stepped building solutions on steeply sloping sites.*

The site is not steeply sloping. Notwithstanding, design does step to account for the slope with the first floor located toward the lower part of the site, reducing the maximum RL of the ridgeline. The RL of the ridgeline is approximately 550mm above the single storey upslope

- e) To encourage a built form of dwellings that does not have negative impact on the visual amenity of the adjoining residences.*

As stated above, height of the first floor is comparable or below that of surrounding dwellings. The addition of first floor component does not substantially alter visual amenity when considering the impacts attributed to a single storey design.

- f) To ensure ancillary structures have appropriate scale and are not visually dominant compared to the dwelling.*

NA – No ancillary structures proposed.

*g) To ensure appropriate correlation between the height and setbacks of ancillary structures.*

NA – No ancillary structures proposed.

*h) To encourage positive solar access outcomes for dwellings and the associated private open spaces.*

The proposal will result in some overshadowing of dwellings located to the west, south and proposed lot 211 during midwinter.

The height and setbacks of the first-floor element dictate that this element does not in itself significantly increase overshadowing when compared to a single storey dwelling located on lot 212.

Furthermore, the affected properties receive an adequate amount of solar access as provided by the relevant DCP controls.

*(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.*

The centralised location of the first floor element, maximum height of the ridgeline and absence of window on the side and rear elevations demonstrate that the variation will not result in significant undue impacts on visual amenity, privacy or solar access.

#### **ISSUE: LANDSCAPED AREA BEHIND THE BUILDING LINE**

*(a) The control being varied;*

Chapter B1 – 4.5.2 – (3) At least 50% of the landscaped area must be located behind the building line to the primary road boundary.

*(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested; and*

The variation being sought applies to the existing dwelling and proposed Lot 211.

~100m<sup>2</sup> of landscaped area is provided on this lot, ~27% is to be located behind the building line.

The 100m<sup>2</sup> does not include 22m<sup>2</sup> of 'Grass-cel' permeable paved area or 45m<sup>2</sup> existing pool area, all of which are located behind the building line.

It is also noted the existing dwelling is setback between ~7 and ~10m from the front property boundary, beyond the 6m required for new infill development. This additional setback further orients landscaped area toward the front of the building line.

*(c) Demonstrate how the objectives are met with the proposed variations; and*

The objectives of the control include;

*(a) To preserve and retain existing native trees and vegetation and encourage the planting of additional native vegetation.*

No existing native trees behind the building line are affected. Council's Landscape Architect has reviewed the planting schedule and found it satisfactory.

*(b) To encourage the linkage of habitat corridors along the rear of sites.*

The rear of the lot is largely compromised by existing pool and paved area. No impact on habitat corridors is anticipated due to this variation.

*(c) To allow for increased water infiltration and minimise urban run-off.*

Adequate permeable landscaped area across the site has been provided and Council's Development Engineer has reviewed the proposal and found it satisfactory in this regard. The variation will have no impact with respect to water infiltration & run-off.

*(d) To facilitate pleasant views from within dwellings and backyard settings.*

Views and backyard amenity of existing dwelling is largely dictated by existing pool, awning and paved area. Landscaped area is proposed along the northern section of the backyard area.

*(e) To reduce privacy and amenity impacts at the rear of residential properties.*

Level of privacy and amenity of the immediate area surrounding the subject area behind the building line is will remain largely unchanged as existing pool and awning are to be retained.

*(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.*

The variation is largely the result of the backyard area being compromised by existing pool and surrounding paved areas.

The variation itself will not result in additional impacts and the overall landscape treatment of the proposed lot 211 is acceptable with regard to amount of landscaped area, species selection and integration with existing dwelling.

It is noted Council's Landscape Architect has reviewed the proposal and found it satisfactory subject to conditions.

## **CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT**

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development.

## **CHAPTER B1 – RESIDENTIAL DEVELOPMENT**

See compliance table at attachment 6.

## **CHAPTER B2 – RESIDENTIAL SUBDIVISION**

See compliance table at Attachment 6.

## **CHAPTER D1 – CHARACTER STATEMENTS**

### Balgownie

The character statement does not make direct reference to the site or development type. However, it does anticipate a mix of single & two storey dwelling houses and multi dwelling housing, and maintains Balgownie will remain a low density residential area.

The proposal is considered to be consistent with the existing and desired future character for the locality.

## **CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN**

The proposed subdivision layout and building design does not raise any concerns with regard to crime prevention.

## **CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT**

Car parking provision, access and design has been considered under Chapters B1 (see above) and E3 and was found to be satisfactory.

A turning bay is proposed to be located within the front setback of the existing dwelling to permit vehicles to exit the site in a forward direction. The presence of the paved turning bay and related visual impact has been considered on balance with the resultant safety improvements also considered. It was recommended by Council's Development Engineer that the turning bay be retained rather than permit vehicles to reverse into the roadway.

There is significant landscaping proposed (and existing) within the front setback that will screen the area somewhat.

In addition, it is noted the neighbouring property to the north contains a large paved area within the same setback to Kembla Street, establishing an unfortunate visual precedent in the streetscape.

#### **CHAPTER E6: LANDSCAPING**

A landscape concept plan prepared by 'Mark Spence Environmental & Landscape Services' has been provided and is satisfactory with regard to the requirements of Chapter E6.

Design of landscaped areas has been assessed under Chapter B1 (see above).

Council's Landscape Architect has assessed the proposal and found it satisfactory subject to conditions.

#### **CHAPTER E7: WASTE MANAGEMENT**

The proposal involves demolition of several outbuildings and a demolition plan has accordingly been provided.

Suitable waste storage and servicing arrangements have been provided as follows:

- Waste storage areas provided for each dwelling
- Curb side waste collection proposed.

#### **CHAPTER E13 FLOODPLAIN MANAGEMENT**

The site is classified as 'Flood Affected-Uncategorised Flood Risk Precinct'.

The applicant has provided a Flood Report, prepared by 'Westlake Punnet', which claims the site is not affected by floodwaters due the implementation and construction of an overflow path that was constructed as part of the development 5 and 5A Elsie Court, which diverts overland flows from up-catchment lots.

The report and development have been reviewed by Council's Development Engineer who confirmed the development is satisfactory with regard to the provisions of Chapter E13 and recommended appropriate conditions of consent.

#### **CHAPTER E14 STORMWATER MANAGEMENT**

Stormwater is proposed to be disposed of to a modified stormwater system. A stormwater Concept Plan has been submitted in support of the application. Council's Development Engineer has reviewed the proposal with respect to the provisions of this chapter and has recommended conditions of consent.

#### **CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION**

Trees numbered 11, 12 and 13 in the Arboricultural Assessment Report prepared by Allied Tree Consultancy are proposed to be removed in order to facilitate the development. The numbered trees are as follows:

\*11 Magenta Lilly Pilly *Syzygium paniculatum*

12 Powderpuff Lilly Pilly *Syzygium wilsonii*

13 Magenta Lilly Pilly *Syzygium paniculatum*

The arborist report noted that trees 11 and 12 were of low importance and 13 of medium importance. The trees are proposed to be removed to allow for more appropriate dense planting to the rear setback that will not be impacted upon by the proposed dwellings or impact upon the existing retaining wall on the rear boundary.

The proposed compensatory planting species include Little Gem (*Magnolia* 'Little gem') and Grey Myrtle (*Backhousia myrtifolia*).

Council's Landscape Architect has assessed the proposal and found the proposed tree removal satisfactory subject to conditions.

## **CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)**

The proposal requires earthworks to enable the constriction of the dwellings, driveways and drainage infrastructure. The earthworks are not expected to have a detrimental impact on environmental functions and processes, neighbouring uses or heritage items and features surrounding land.

## **CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT**

Standard conditions will be applied regarding demolition and hazardous building materials management.

## **CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL**

Conditions of consent are recommended in regard to appropriate sediment and erosion control measures to be in place during works.

### **2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN 2019**

The estimated cost of works is >\$200,000 and a levy of 1% is applicable under this plan as the threshold value is \$100,000.

### **2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4**

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

### **2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)**

92 What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent are recommended with regard to demolition.

### **2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT**

#### Context and Setting:

The proposal is permissible in the subject R2 Low Density Residential zone and below the permitted maximum height and floor space ratio.

The immediate locale has been developed to provide a variety in residential density, including a mixture of multi dwelling housing, dual occupancies and multi storey single dwellings.

The topographic conditions of the site will result in a development which sits below the surrounding dwellings and the design is not significant in terms of size or scale.

#### Access, Transport and Traffic:

Access and car parking has been considered under the relevant DCP controls and by Council's Development Engineer and was found to be acceptable. No significant impacts are anticipated in this regard.

#### Public Domain:

The development will not have a significant visual impact on the streetscape or public domain.

#### Utilities:

The proposal is not envisaged to place an unreasonable demand on utilities supply.

Heritage:

No heritage items will be impacted by the proposal.

Other land resources:

The proposal is considered to contribute to orderly development of the site and is not envisaged to impact upon any valuable land resources.

Water:

The site is presently serviced by Sydney Water, which can be readily extended to meet the requirements of the proposed development.

The proposal is not envisaged to have unreasonable water consumption.

Soils:

The development entail minor earthworks only, no significant impact on soils is anticipated.

Air and Microclimate:

The proposal is not expected to have any negative impact on air or microclimate.

Flora and Fauna:

The proposed tree removal and landscape plan have been assessed under the relevant DCP controls and by Council's Landscape Architect and were acceptable.

Waste:

The development is able to be adequately serviced via curb site collection.

A condition will be attached to any consent granted that an appropriate receptacle be in place for any waste generated during the construction.

Energy:

The proposal is not envisaged to have unreasonable energy consumption.

Noise and vibration:

A condition will be attached to any consent granted that nuisance be minimised during any construction, demolition, or works.

Natural hazards:

Council records list the site as flood affected (uncategorised). A flood study has been submitted and reviewed by Council's Development Engineer and found to be acceptable. No increase in flood risk is anticipated.

Technological hazards:

There are no technological hazards affecting the site that would prevent the proposal.

Safety, Security and Crime Prevention:

This application does not result in any opportunities for criminal or antisocial behaviour.

Social Impact:

The proposal is not expected to create any negative social impact.

Economic Impact:

The proposal is not expected to create any negative economic impact.

#### Site Design and Internal Design:

The application does not result in any significant departures from development standards and variations to Council's development control plans have been assessed as acceptable as outlined above.

A condition will be attached to any consent granted that all works are to be in compliance with the Building Code of Australia.

#### Construction:

Conditions of consent are recommended in relation to construction impacts such as hours of work, erosion and sedimentation controls, works in the road reserve, excavation, demolition and use of any crane, hoist, plant or scaffolding.

#### Cumulative Impacts:

The proposal is not expected to have any negative cumulative impacts.

## **2.7 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR THE DEVELOPMENT**

### Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and is not expected to have any negative impacts on the amenity of the locality or adjoining developments.

### Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal.

## **2.8 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS**

See section 1.3 above.

## **2.9 SECTION 4.15(1)(E) THE PUBLIC INTEREST**

The application is not expected to have any unreasonable impacts on the environment or the amenity of the locality. It is considered appropriate with consideration to the zoning and the character of the area and is considered to be in the public interest.

## **3 CONCLUSION**

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This application has been assessed having regard to the Heads of Consideration under Section S4.15(1) of the Environmental Planning and Assessment Act 1979, the provisions of Wollongong Local Environmental Plan 2009 and all relevant Council DCPs, Codes and Policies. The proposal is considered acceptable with regard to the likely impacts and public submissions are not considered to warrant redesign. The proposal is considered supportable in its current form.

## **4 RECOMMENDATION**

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It is recommended that the development application be approved subject to appropriate conditions of consent.

## 5 ATTACHMENTS

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- 1 Aerial photograph
- 2 WLEP 2009 zoning map
- 3 Proposed Plans
- 4 Arboricultural Report
- 5 Flood Study
- 6 WDCP 2009 Compliance Tables
- 7 Draft conditions of consent
- 8 Refusal Notice DA-2019/1268
- 9 Plans assessed under DA-2019/1268



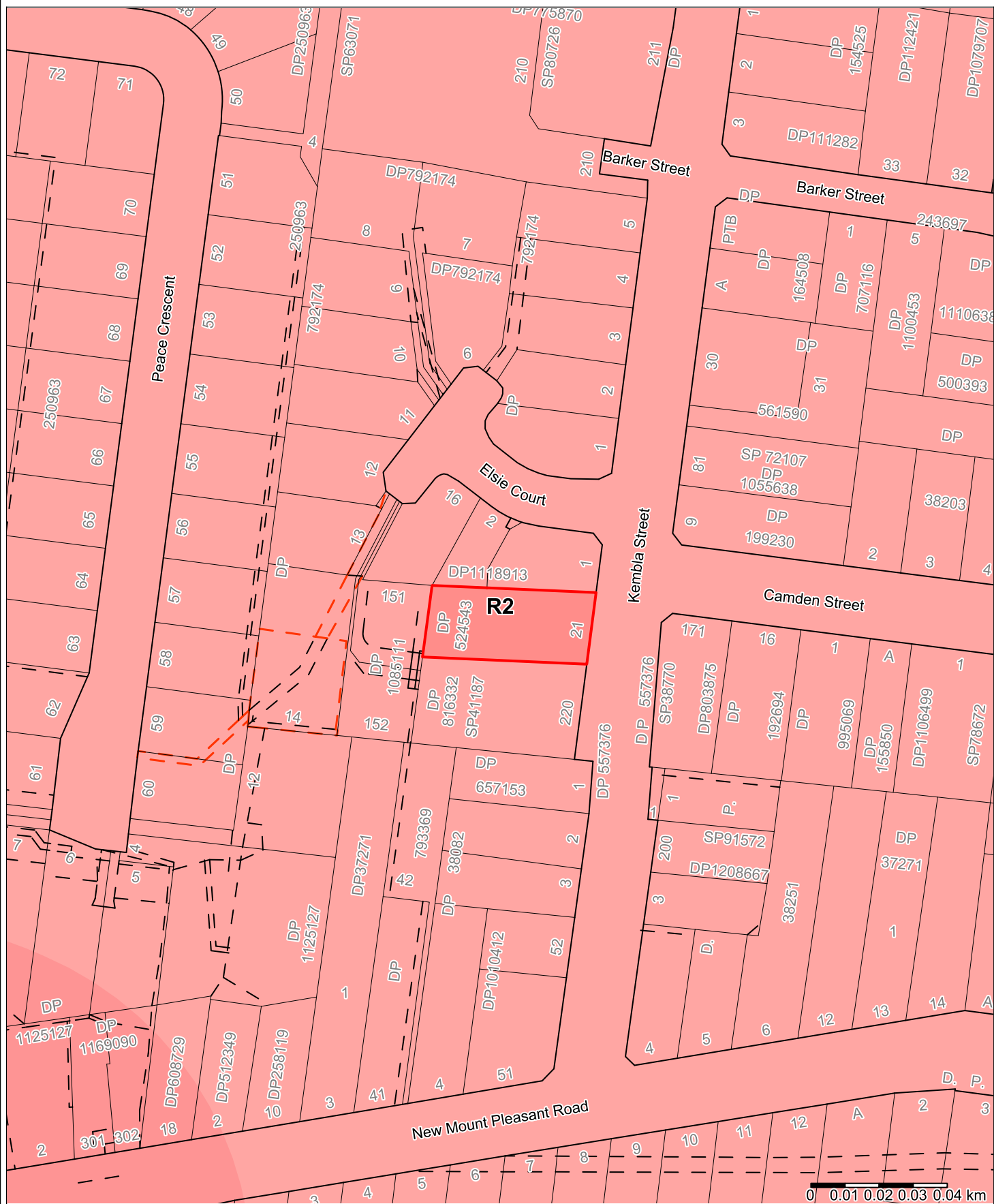
Aerial Photo (2018)



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## WLEP 2009 - Land Zoning Map



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This automated map was produced using TechnologyOne's IntraMaps.

LEGEND:	
AJ -	BRICK ARTICULATION JOINT
B.1200-	BENCH & LENGTH
C.T.-	COOKTOP
D.W.P.-	DISHWASHER PROVISION
F.W. -	FLOOR WASTE
HWU-	HOT WATER UNIT
LOH-	LIFT OFF HINGES
MWP-	MICROWAVE PROVISION
MH-	MANHOLE
SLDR-	SLIDING ROBE DOOR
REF-	REFRIGERATOR SPACE
R.H.-	RANGE HOOD
Ⓢ-	SMOKE DETECTOR
UPC-	UPRIGHT COOKER
UBO-	UNDERBENCH OVEN
V1200-	VANITY & LENGTH
W.O.-	WALL OVEN
W.M.-	WASHING MACHINE SPACE
1200 SQ. SET -	SQUARE SET OPENING AT 2100 HIGH.
75 S/D -	STEPDOWN IN SLAB

BASIX COMMITMENTS - NORTHERN UNIT	
PROJECT TYPE	
PROJECT TYPE	SEPARATE DWELLING HOUSE
NO. BEDROOMS	3
SITE DETAILS	
SITE AREA (m²)	477
ROOF AREA (m²)	131
TOTAL REA OF GRASS LAWN (m²)	41
WATER COMMITMENTS	
FIXTURES	
SHOWER HEADS MIN. RATING	3 STAR
TOILET FLUSHING MIN. RATING	3 STAR
KITCHEN TAPS MIN. RATING	4 STAR
BASIN TAPS MIN. RATING	4 STAR
ALTERNATE WATER	
RAINWATER TANK MIN. SIZE	2000 LITRES
RUNOFF COLLECTION	110m2
CONNECTED TO W.M. TAP	
CONNECTED TO W.C.'S	YES
CONNECTED TO GARDEN TAP	YES
THERMAL COMFORT COMMITMENTS	
CONSTRUCTION	
CONC. SLAB ON GROUND	NIL
WALL INSULATION	R2
CEILING INSULATION	3.5
ROOF COLOUR	MEDIUM
ROOF INSULATION	FOIL/SARKING
WINDOWS GLAZED DOORS AND SKYLIGHTS	
WINDOW GLAZED DOOR NO.	STD ALUMINIUM
ENERGY COMMITMENTS	
HOT WATER	
Gas INST	5 STAR
VENTILATION	
EXHUAUST FANS TO BE INSTALLED;	
AT LEAST ONE BATHROOM	NOT DUCTED
KITCHEN	DUCTED
L'DRY	NATURAL VENTILATION ONLY
ARTIFICIAL LIGHTING	
LED OR FLOURO LIGHTS TO;	
AT LEAST 3 BEDROOMS, 1 LIVING AREAS/ DINING ROOMS	
THE KITCHEN	
NATUIRAL LIGHT	
WINDOWS AND / OR SKYLIGHT TO;	
2 BATHROOMS / TIOLETS	
OTHER	
Outdoor clothes line	
Well Ventilated fridge space	
GAS COOKTOP / ELECTRIC OVEN	

BASIX COMMITMENTS - SOUTHERN UNIT	
PROJECT TYPE	
PROJECT TYPE	SEPARATE DWELLING HOUSE
NO. BEDROOMS	3
SITE DETAILS	
SITE AREA (m²)	477
ROOF AREA (m²)	136
TOTAL REA OF GRASS LAWN (m²)	52
WATER COMMITMENTS	
FIXTURES	
SHOWER HEADS MIN. RATING	3 STAR
TOILET FLUSHING MIN. RATING	3 STAR
KITCHEN TAPS MIN. RATING	4 STAR
BASIN TAPS MIN. RATING	4 STAR
ALTERNATE WATER	
RAINWATER TANK MIN. SIZE	2000 LITRES
RUNOFF COLLECTION %	80
CONNECTED TO W.M. TAP	
CONNECTED TO W.C.'S	YES
CONNECTED TO GARDEN TAP	YES
THERMAL COMFORT COMMITMENTS	
CONSTRUCTION	
CONC. SLAB ON GROUND	NIL
WALL INSULATION	R2
CEILING INSULATION	3.5
ROOF COLOUR	MEDIUM
ROOF INSULATION	FOIL/SARKING
WINDOWS GLAZED DOORS AND SKYLIGHTS	
WINDOW GLAZED DOOR NO.	STD ALUMINIUM
ENERGY COMMITMENTS	
HOT WATER	
Gas INST	5 STAR
VENTILATION	
EXHUAUST FANS TO BE INSTALLED;	
AT LEAST ONE BATHROOM	NOT DUCTED
KITCHEN	DUCTED
L'DRY	NATURAL VENTILATION ONLY
ARTIFICIAL LIGHTING	
LED OR FLOURO LIGHTS TO;	
AT LEAST 3 BEDROOMS, 1 LIVING AREAS/ DINING ROOMS	
THE KITCHEN	
NATUIRAL LIGHT	
WINDOWS AND / OR SKYLIGHT TO;	
2 BATHROOMS / TIOLETS	
OTHER	
Outdoor clothes line	
Well Ventilated fridge space	
GAS COOKTOP / ELECTRIC OVEN	

O	02.11.20	COUNCIL REQUESTED INFORMATION	S.R.P.
K	14.08.20	SECTION 8.4 REVIEW AMENDMENTS	S.R.P.
M	16.07.20	UPDATED PRELIMINARY DA	S.R.P.
L	02.07.20	UPDATED PRELIMINARY REVIEW PLANS	S.R.P.
K	26.05.20	PRELIMINARY PLANS FOR S8.2 REVIEW	S.R.P.
REV	DATE	AMENDMENTS	BY

S: \\Work\\SBD\\Saffioti – 08KEM\\Redesign DA 04.05.20\\8A KEMBLA LOCATION.JPG

LOCATION PLAN - NTS

COVER SHEET



Suite 14, 41 Market Street  
Wollongong NSW 2500  
Ph: 4288 3664  
Email: drafting@srpdesign.com.au

CLIENT: SAFFIOTI

SITE: 8A KEMBLA STREET  
BALGOWNIE 2519  
LOT 21 DP 524543

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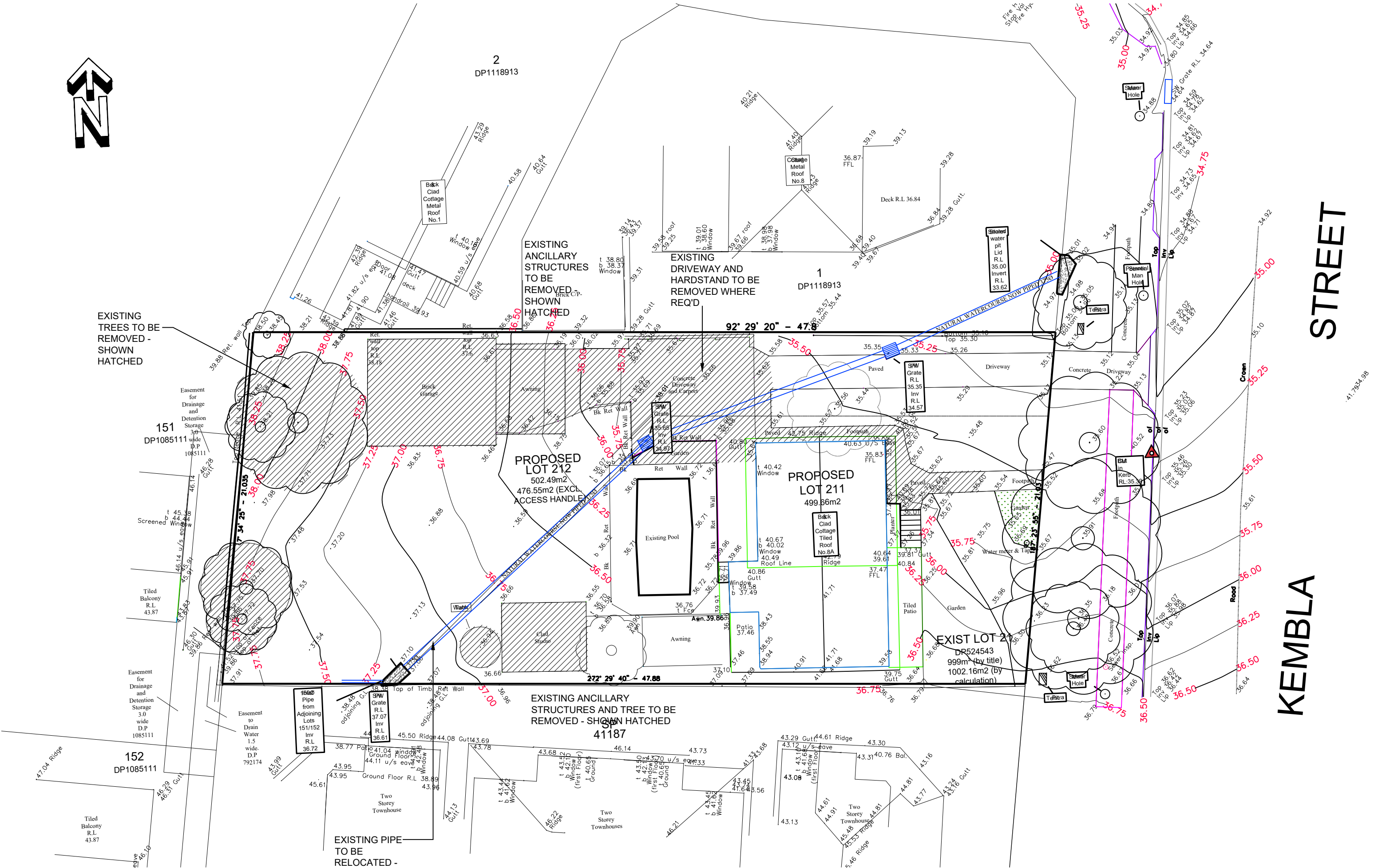
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01/17

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EXISTING TREES TO BE REMOVED - SHOWN HATCHED



KEMBLA STREET

KEMBLA STREET

# SITE DEMOLITION PLAN

SCALE: 1:200



Suite 14, 41 Market Street  
Wollongong NSW 2500  
Ph: 4288 3664  
Email: [drafting@srpdesign.com.au](mailto:drafting@srpdesign.com.au)

CLIENT: SAFFIOTI  
  
SITE: 8A KEMBLA STREET  
BALGOWNIE 2519  
LOT 21 DP 524543

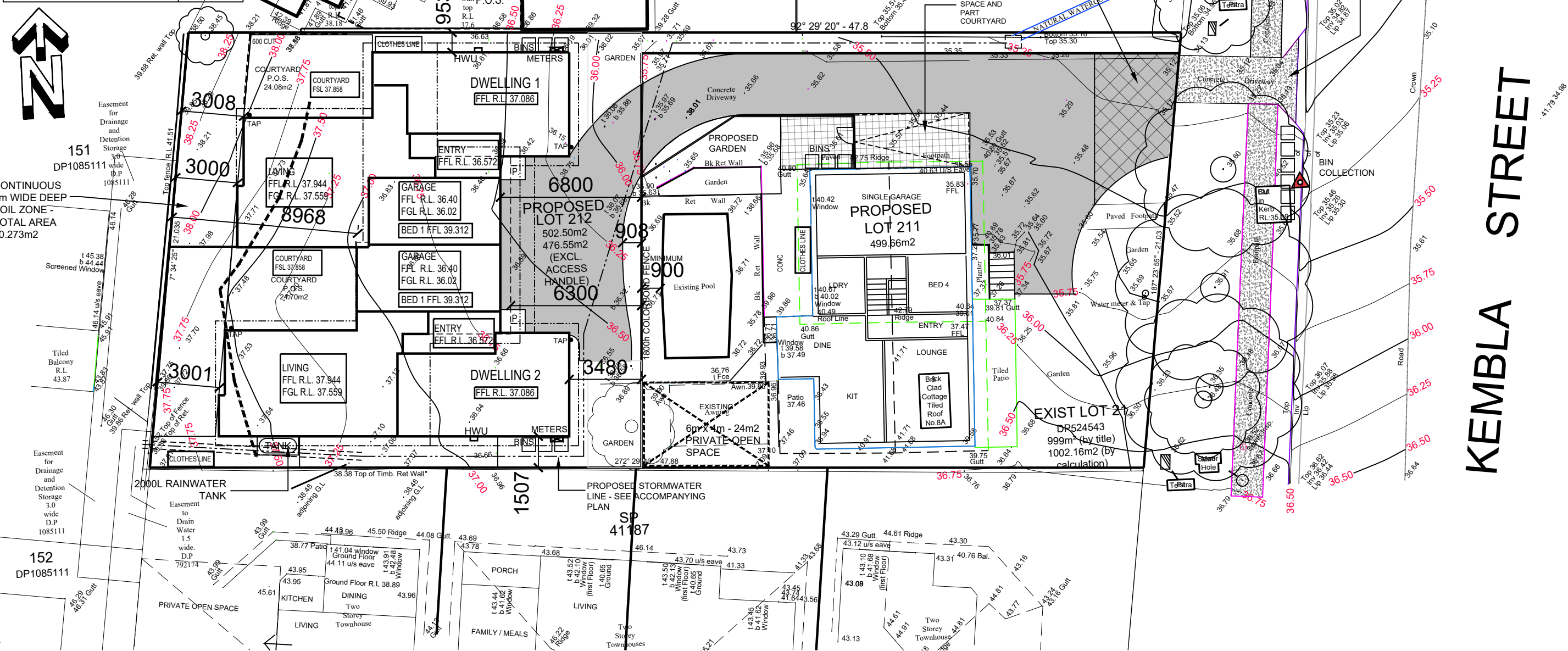
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**02 / 17**  
ISSUE  
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WOLLONGONG DUAL OCCUPANCY SITE CALCULATIONS - PROPOSED LOT 212	
DWELLING 1 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	86.15 m <sup>2</sup>
DWELLING 1 HABITABLE ROOF SPACE (EX. EXTERNAL WALLS)	24.34 m <sup>2</sup>
DWELLING 2 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	85.50 m <sup>2</sup>
DWELLING 2 HABITABLE ROOF SPACE (EX. EXTERNAL WALLS)	26.15 m <sup>2</sup>
GROSS FLOOR AREA	222.14 m <sup>2</sup>
SITE AREA	476.55 m <sup>2</sup>
TOTAL LANDSCAPE AREA (excl. areas < 1.5m wide).	
LANDSCAPE AREA (MIN. 95.31m2)	96.67 m <sup>2</sup>
< 600 SQ.M - 20% 600 - 900 SQ.M = 120 SQ.M + 30% OF SITE AREA > 900 SQ.M > 900 SQ.M = 210 SQ.M + 40% OF SITE AREA > 900SQ.M	20.28 %
% LANDSCAPE BEHIND BUILDING LINE	78.26 %
DEEP SOIL ZONE	60.273 m <sup>2</sup>
FLOOR SPACE RATIO (MAX 0.5:1)	0.4661 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	
SITE COVERAGE %	230.66 m <sup>2</sup>
55% LOTS < 450 SQ.M 50% LOTS > OR EQUAL TO 450 SQ.M 40% LOTS > OR EQUAL TO 900 SQ.M	48.40 %

WOLLONGONG SITE CALCULATIONS - PROPOSED LOT 211	
GROUND FLOOR (EX. EXTERNAL WALLS)	77.92 m <sup>2</sup>
LOWER LEVEL (EX. EXTERNAL WALLS)	49.99 m <sup>2</sup>
GROSS FLOOR AREA	127.91 m <sup>2</sup>
SITE AREA	499.66 m <sup>2</sup>
TOTAL LANDSCAPE AREA (excl. areas < 1.5m wide).	
LANDSCAPE AREA (MIN. 99.93m2)	124.77 m <sup>2</sup>
< 600 SQ.M - 20% 600 - 900 SQ.M = 120 SQ.M + 30% OF SITE AREA > 900 SQ.M > 900 SQ.M = 210 SQ.M + 40% OF SITE AREA > 900SQ.M	24.97 %
LANDSCAPE BEHIND BUILDING LINE	55.75 %
FLOOR SPACE RATIO (MAX 0.5:1)	0.26 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	
SITE COVERAGE %	108.98 m <sup>2</sup>
55% LOTS < 450 SQ.M 50% LOTS > OR EQUAL TO 450 SQ.M 40% LOTS > OR EQUAL TO 900 SQ.M	21.81 %



## SITE PLAN

SCALE: 1:200



Suite 14, 41 Market Street  
Wollongong NSW 2500  
Ph: 4288 3664  
Email: drafting@srpdesign.com.au

CLIENT: SAFFIOTI

SITE: 8A KEMBLA STREET  
BALGOWNIE 2519  
LOT 21 DP 524543

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03 /17

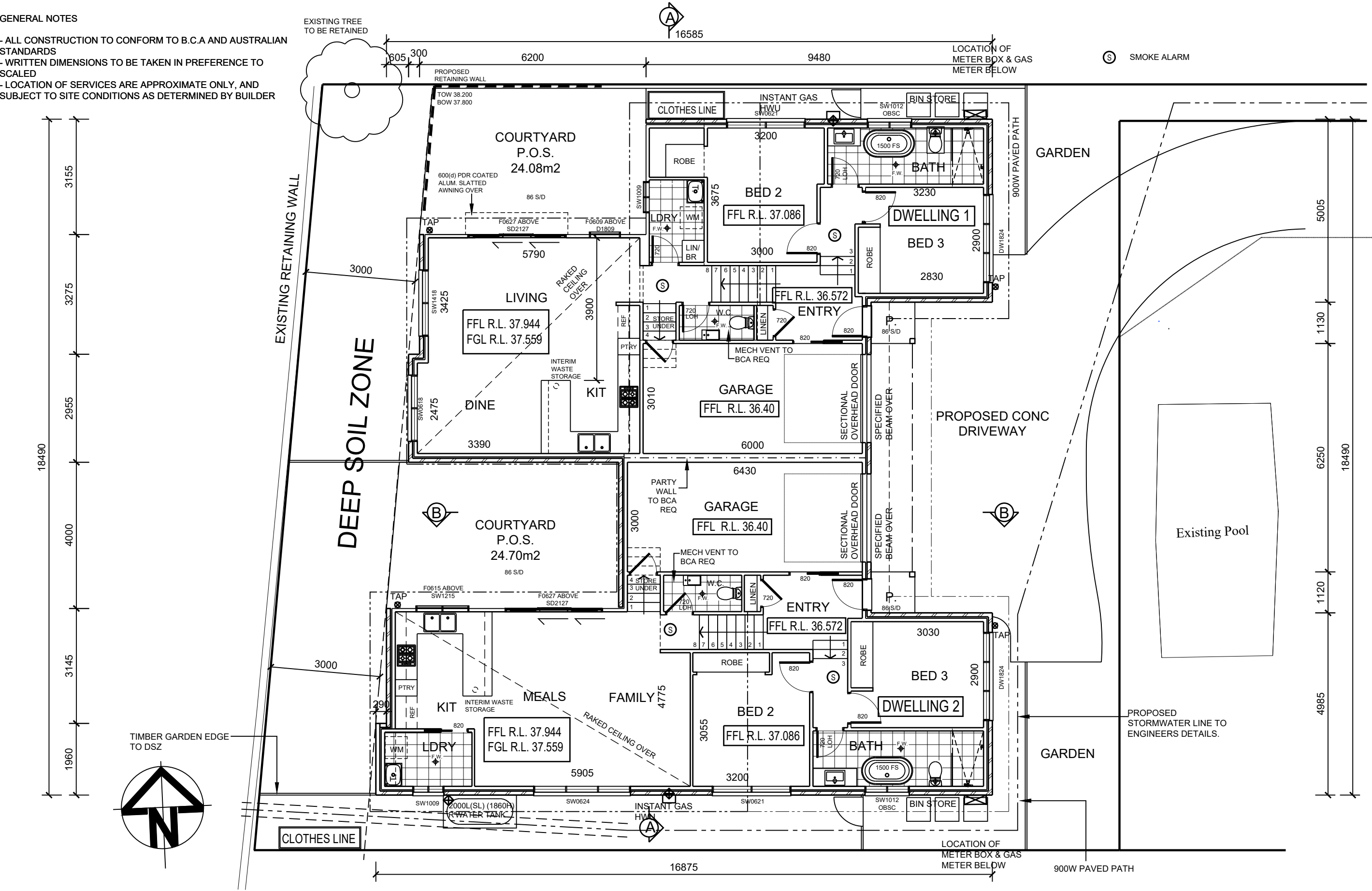
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GENERAL NOTES

- ALL CONSTRUCTION TO CONFORM TO B.C.A AND AUSTRALIAN STANDARDS
- WRITTEN DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED
- LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND SUBJECT TO SITE CONDITIONS AS DETERMINED BY BUILDER



GROUND FLOOR PLAN

SCALE: 1:100



Suite 14, 41 Market Street  
Wollongong NSW 2500  
Ph: 4288 3664  
Email: drafting@srpdesign.com.au

CLIENT: SAFFIOTI

SITE: 8A KEMBLA STREET  
BALGOWNIE 2519  
LOT 21 DP 524543

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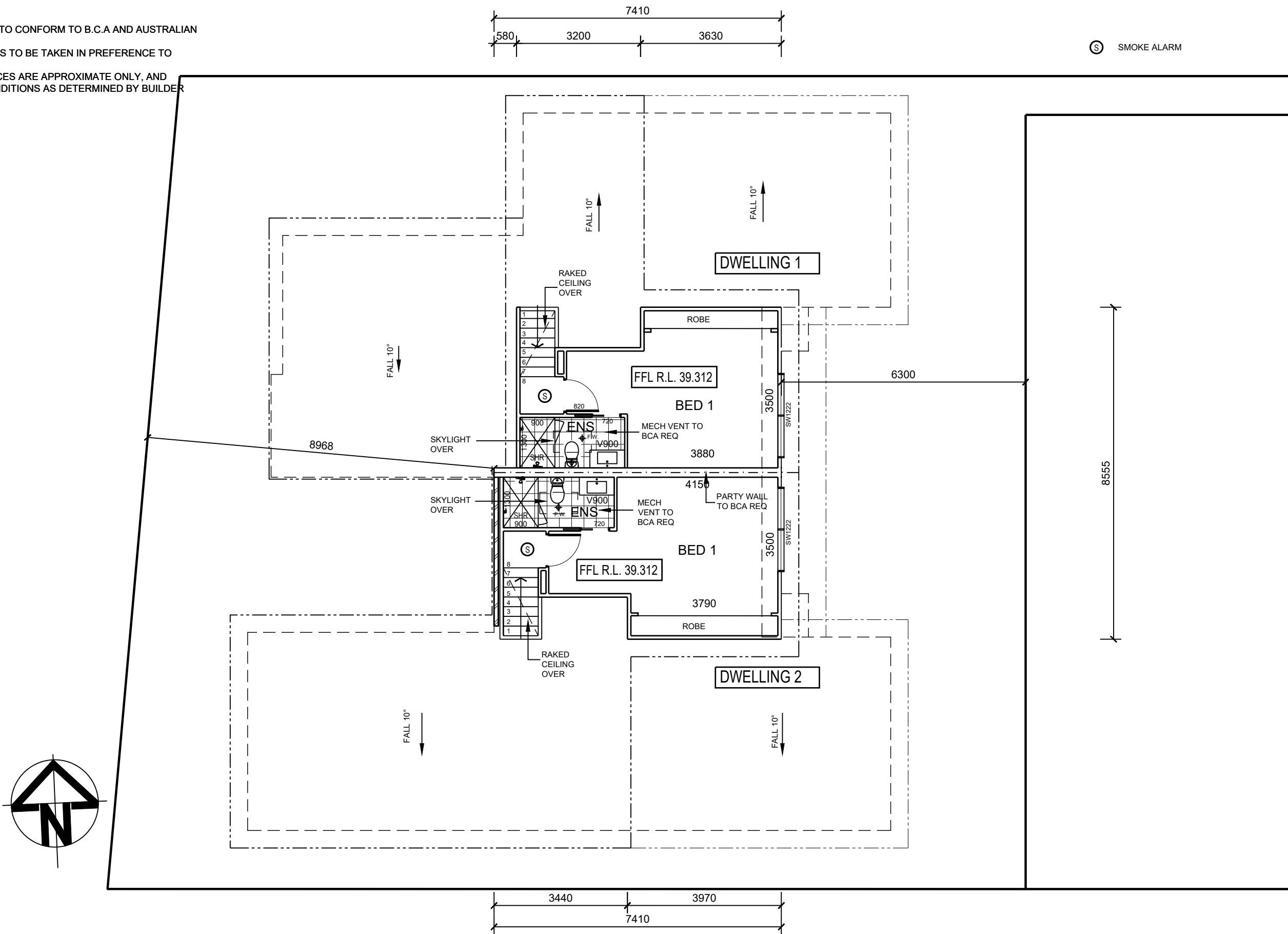
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GENERAL NOTES

- ALL CONSTRUCTION TO CONFORM TO B.C.A AND AUSTRALIAN STANDARDS
- WRITTEN DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED
- LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND SUBJECT TO SITE CONDITIONS AS DETERMINED BY BUILDER



HABITABLE ROOF SPACE PLAN

SCALE: 1:100



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Wollongong NSW 2500  
Ph: 4288 3664  
Email: [drafting@srpdesign.com.au](mailto:drafting@srpdesign.com.au)

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SITE: 8A KEMBLA STREET  
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LOT 21 DP 524543

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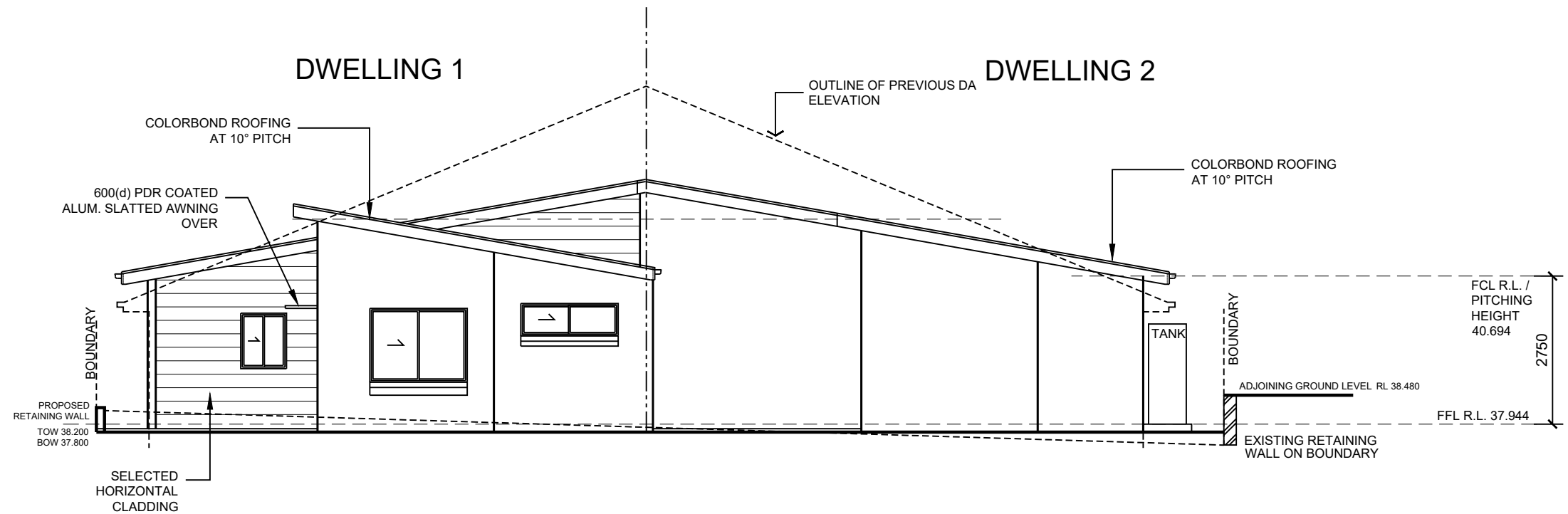
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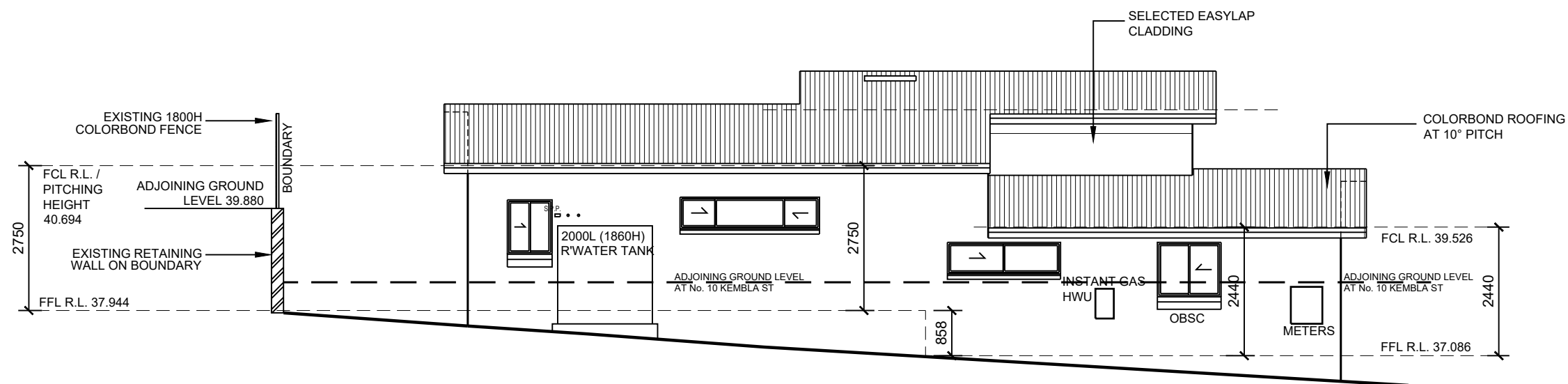
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## WESTERN ELEVATION



## SOUTHERN ELEVATION

### ELEVATIONS

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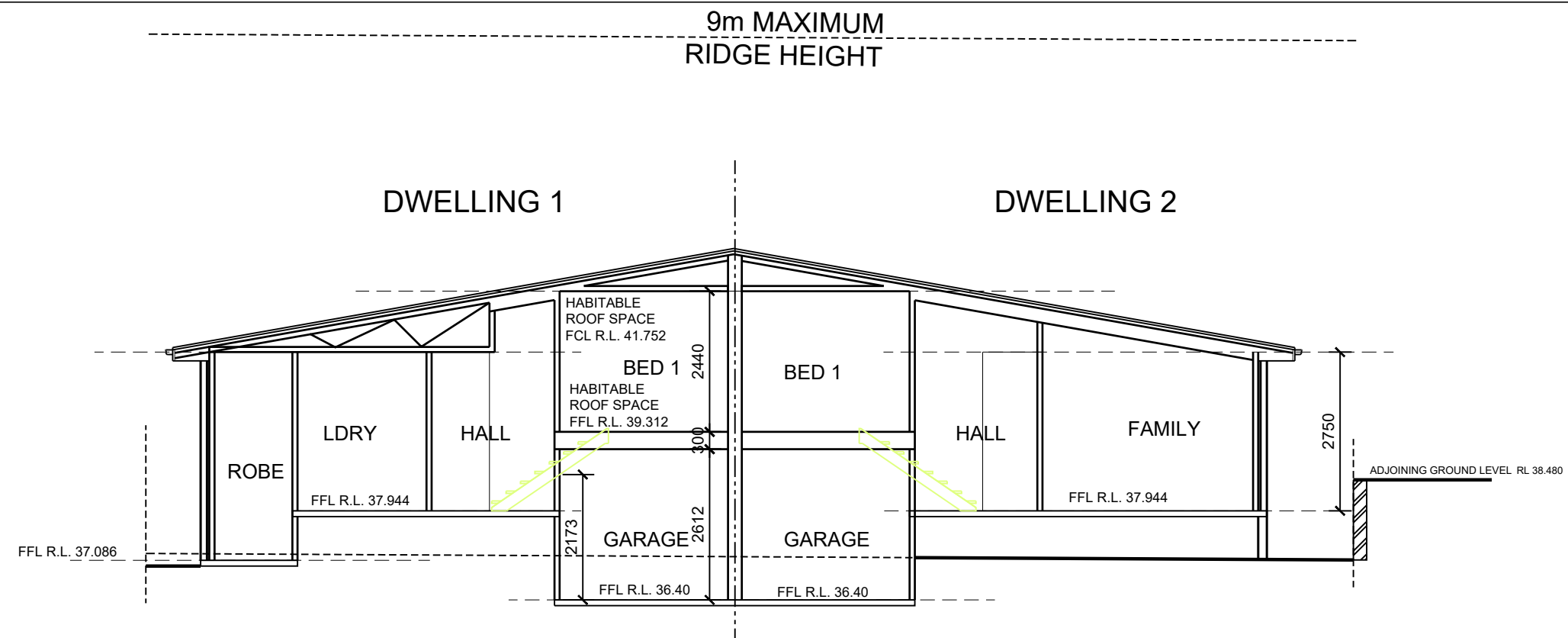
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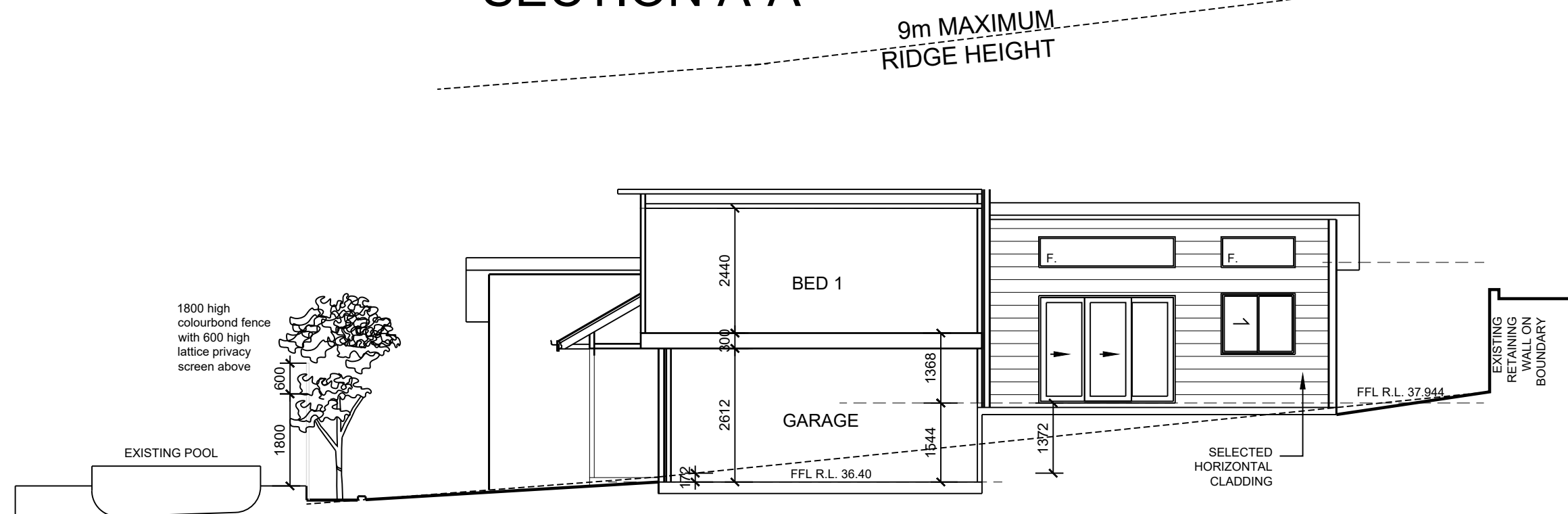
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SECTION A-A



SECTION B-B

## SECTIONS

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STREETSCAPE ELEVATION

STREETSCAPE ELEVATION

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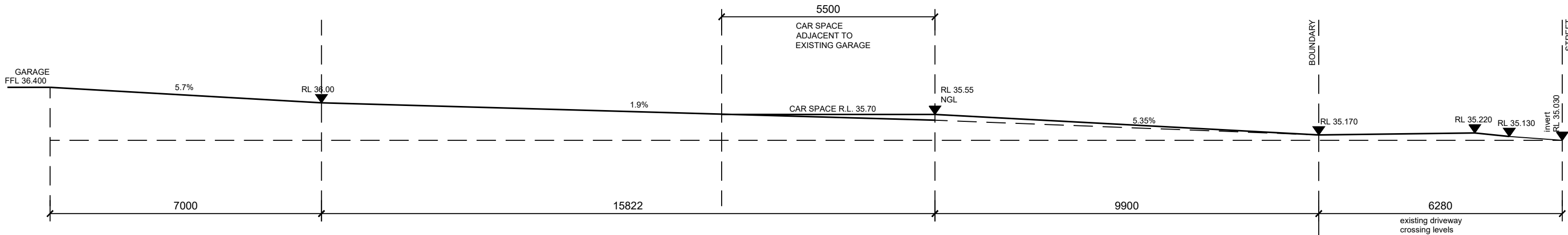
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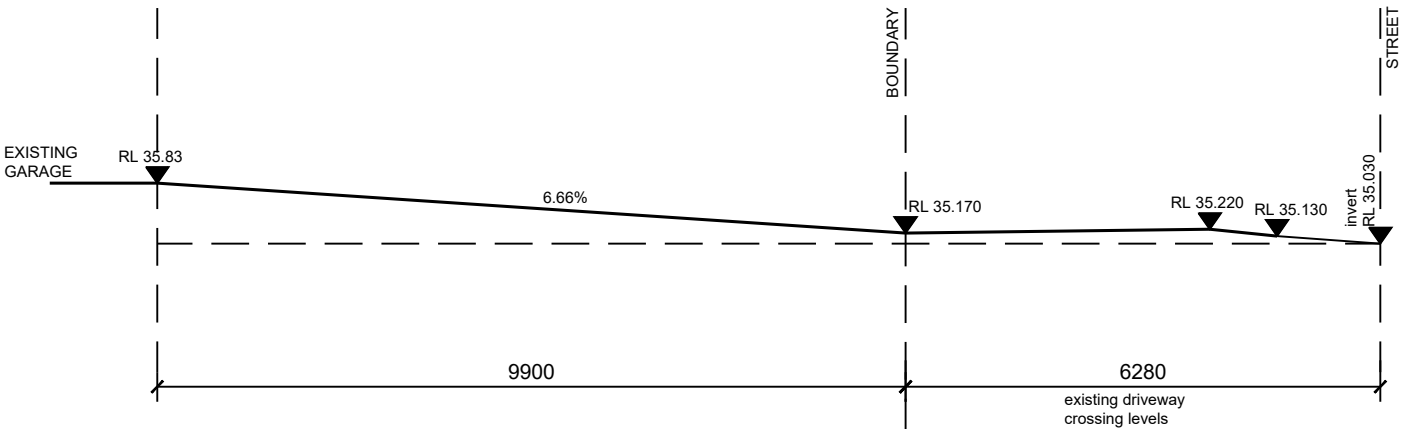
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### DRIVEWAY GRADIENT PROFILE LOT 212 - UNIT 1 & 2

SCALE 1:100  
 \*\* TO COMPLY WITH AS2890.1:2004\*\*



### DRIVEWAY GRADIENT PROFILE LOT 211 - EXISTING DWELLING GARAGE

SCALE 1:100  
 \*\* TO COMPLY WITH AS2890.1:2004\*\*

#### SECTIONS

SCALE: 1:100



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 LOT 21 DP 524543

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## SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE STANDARDS OF THE SOIL CONSERVATION OF NSW AND INSPECTED DAILY BY THE SITE MANAGER.

2. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILIZED AS EARLY AS POSSIBLE DURING DEVELOPMENT.

3. SEDIMENT TRAPS SHALL BE CONSTRUCTED AROUND ALL INLET PITS, CONSISTING OF 300mm WIDE x 300mm DEEP TRENCH.

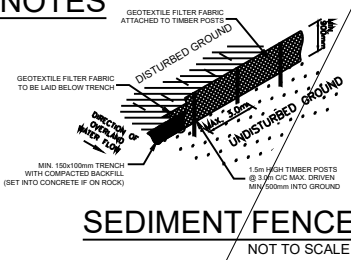
4. ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM OF 60% FULL OF SOIL MATERIALS, INCLUDING THE MAINTENANCE PERIOD.

5. ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.

6. SOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREA WHERE WATER MAY CONCENTRATE. ALL ROADS AND FOOTPATHS TO BE SWEEPED DAILY.

7. FILTER SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR APPROVED EQUIVALENT BETWEEN POST AT 3.0m CENTRES. FABRIC SHALL BE BURIED 150mm ALONG ITS LOWER EDGE.

8. DUST PREVENTION MEASURES TO BE MAINTAINED AT ALL TIMES.



NOTE:  
TEMPORARY SECURITY FENCING  
TO THE PERIMETER OF BOUNDARY  
WHERE REQUIRED TO PREVENT PUBLIC  
ACCESS ONTO SITE.

NOTE:  
ALL GROUND LINES ARE APPROXIMATE.  
EXTENT OF CUT AND FILL BATTERS  
WILL BE DETERMINED ON SITE. SEDIMENT  
BARRIERS ARE TO BE CUSTOMISED SITE  
SPECIFIC

SEDIMENT EROSION  
CONTROL FENCE

P.O.S.  
ALL WEATHER  
CONSTRUCTION  
ACCESS

DRIVEWAY 1  
DP118913

5.5m x 2.6m  
'GRASS-CEL'  
PERMEABLE  
PAVED CAR  
PARKING  
SPACE AND  
PART  
COURTYARD

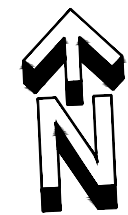
Storm  
water  
pit  
Lid  
R.L.  
35.00  
Invert  
R.L.  
33.62

Storm  
Hole

Storm  
Hole

Storm  
Hole

KEMBLA STREET



151  
DP1085111

CONTINUOUS  
3m WIDE DEEP  
SOIL ZONE -  
TOTAL AREA  
60.273m<sup>2</sup>

Screened Window

Tiled  
Balcony  
R.L.  
43.87

Easement  
for  
Drainage  
and  
Detention  
Storage  
3.0  
wide  
D.P.  
1085111

152  
DP1085111

2000L RAINWATER  
TANK

Easement  
to  
Drain  
Water  
1.5  
wide  
D.P.  
792174

PRIVATE OPEN SPACE

KITCHEN

DINING

Two  
Storey

LIVING

PORCH

LIVING

LIVING

LIVING

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## SITE WASTE MANAGEMENT PLAN

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LOT 21 DP 524543

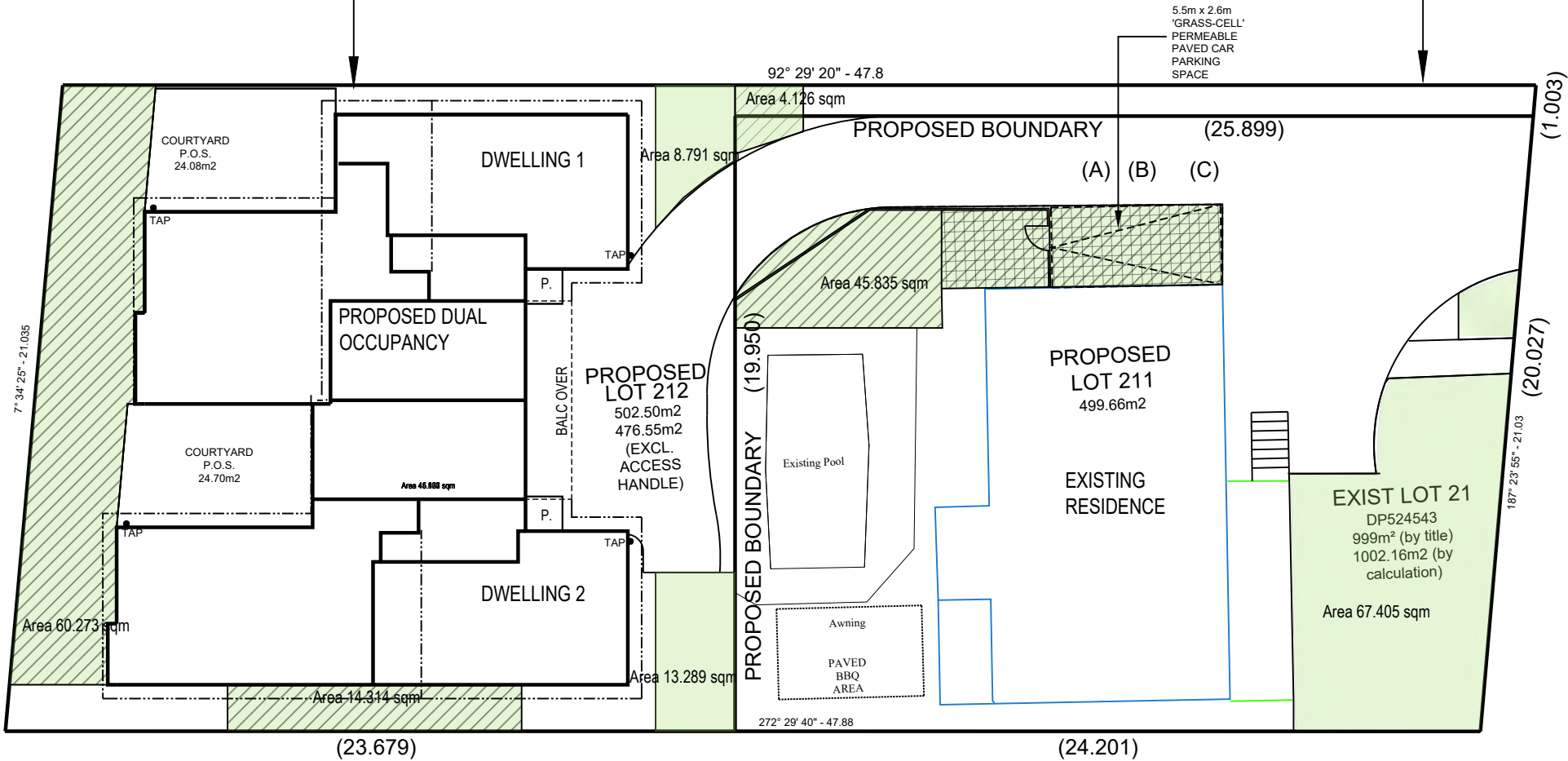
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LANDSCAPE AREAS LOT 212 (SITE AREA 476.55m2) PROPOSED DUAL OCCUPANCY	
MINIMUM LANDSCAPED AREA REQUIRED	= 95.31m2
PROPOSED TOTAL LANDSCAPED AREA (EXCL <1.5m WIDE)	= 96.667m2
MINIMUM LANDSCAPED AREA REQUIRED BEHIND BUILDING LINE	= 47.66m2 (50% OF MIN REQ)
PROPOSED LANDSCAPED AREA BEHIND BUILDING LINE =	= 74.587m2 (OR 78.26% OF REQUIRED LANDSCAPED AREA)
MINIMUM DEEP SOIL ZONE REQUIRED	= 47.655m2 (50% OF MIN LANDSCAPE AREA)
PROPOSED DEEP SOIL ZONE	= 60.273m2

LANDSCAPE AREAS LOT 211 (SITE AREA 499.66m2) EXISTING RESIDENCE	
MINIMUM LANDSCAPED AREA REQUIRED	= 99.93m2
PROPOSED TOTAL LANDSCAPED AREA (EXCL <1.5m WIDE)	= 124.77m2
MINIMUM LANDSCAPED AREA REQUIRED BEHIND BUILDING LINE	= 49.96m2 (50% OF MIN REQ)
PROPOSED LANDSCAPED AREA BEHIND BUILDING LINE =	= 49.962m2 (OR 50% OF MIN REQUIRED LANDSCAPED AREA)



KEMBLA STREET

CONCEPT SUBDIVISION PLAN

SCALE: 1:200



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## STAGE 1

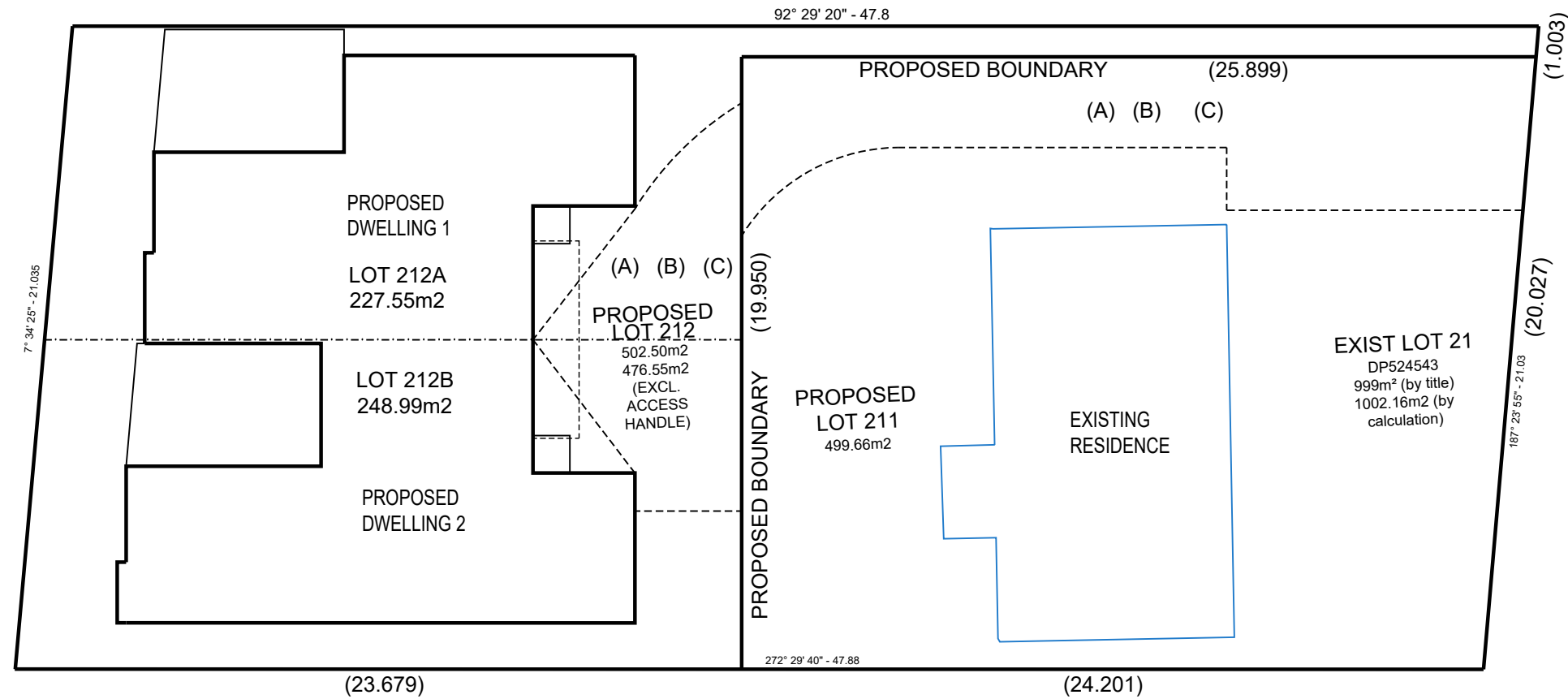
TORRENS TITLE SUBDIVISION

EXISTING LOT 21	1002.16m2 (BY CALCULATION)
PROPOSED LOT 211	499.66m2
PROPOSED LOT 212	502.50m2 (INCL ACCESS HANDLE)
	476.55m2 (EXCL ACCESS HANDLE)

## STAGE 2

STRATA TITLE SUBDIVISION OF PROPOSED LOT 212

PROPOSED LOT 211	499.66m2
PROPOSED LOT 212	502.50m2 (INCL ACCESS HANDLE)
	476.55m2 (EXCL ACCESS HANDLE)



- (A) - RIGHT OF CARRIAGEWAY VAR WIDTH  
(B) - EASEMENT FOR DRAINAGE VAR WIDTH  
(C) - EASEMENT FOR SERVICES VAR WIDTH

### CONCEPT SUBDIVISION PLAN

SCALE: 1:200



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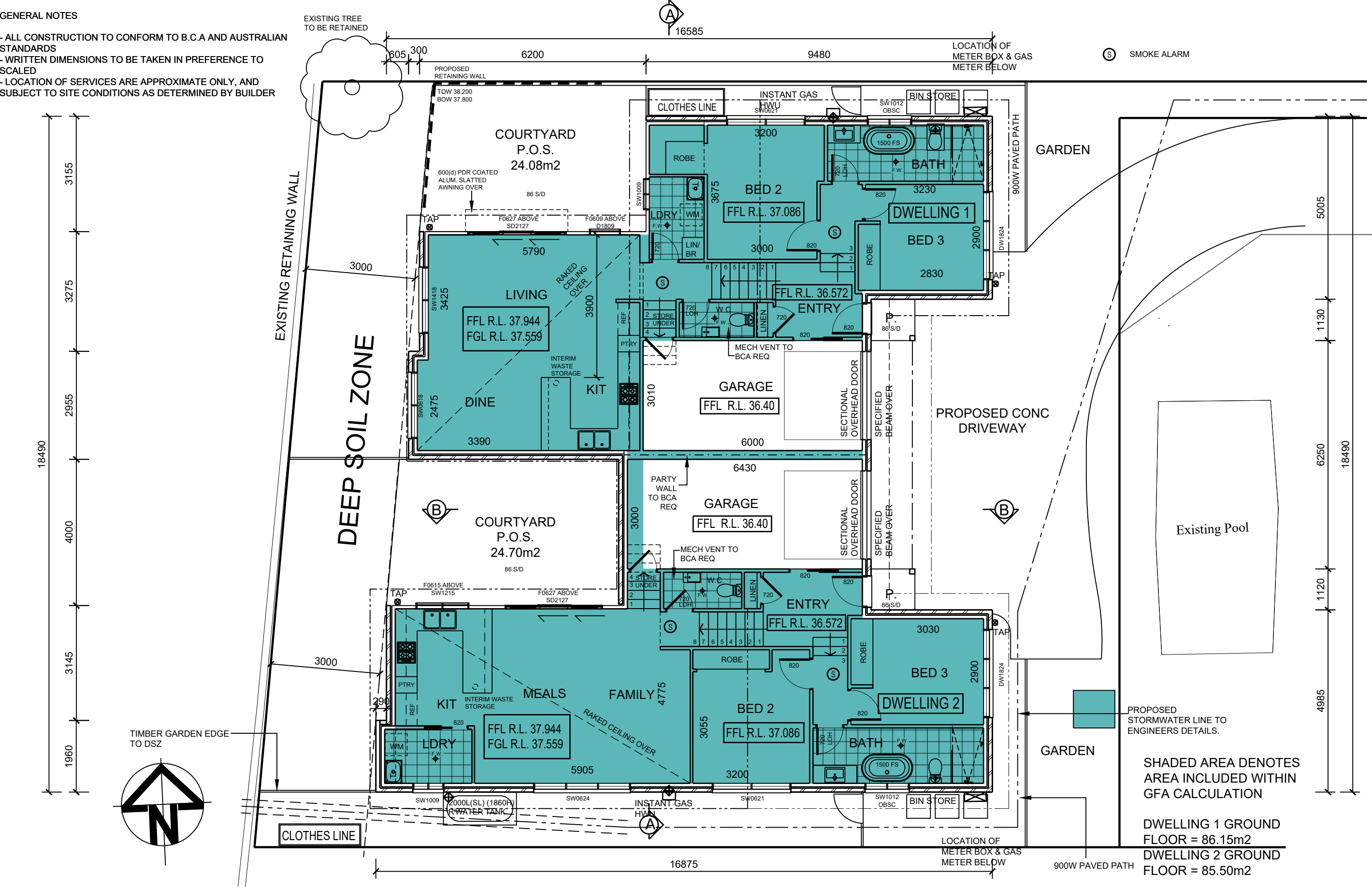
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GENERAL NOTES

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- WRITTEN DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED
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PROPOSED LOT 212 GROUND FLOOR  
GROSS FLOOR AREA PLAN

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- LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND SUBJECT TO SITE CONDITIONS AS DETERMINED BY BUILDER



DWELLING 1 HABITABLE  
ROOF SPACE = 24.34m<sup>2</sup>  
DWELLING 2 HABITABLE  
ROOF SPACE = 26.15m<sup>2</sup>

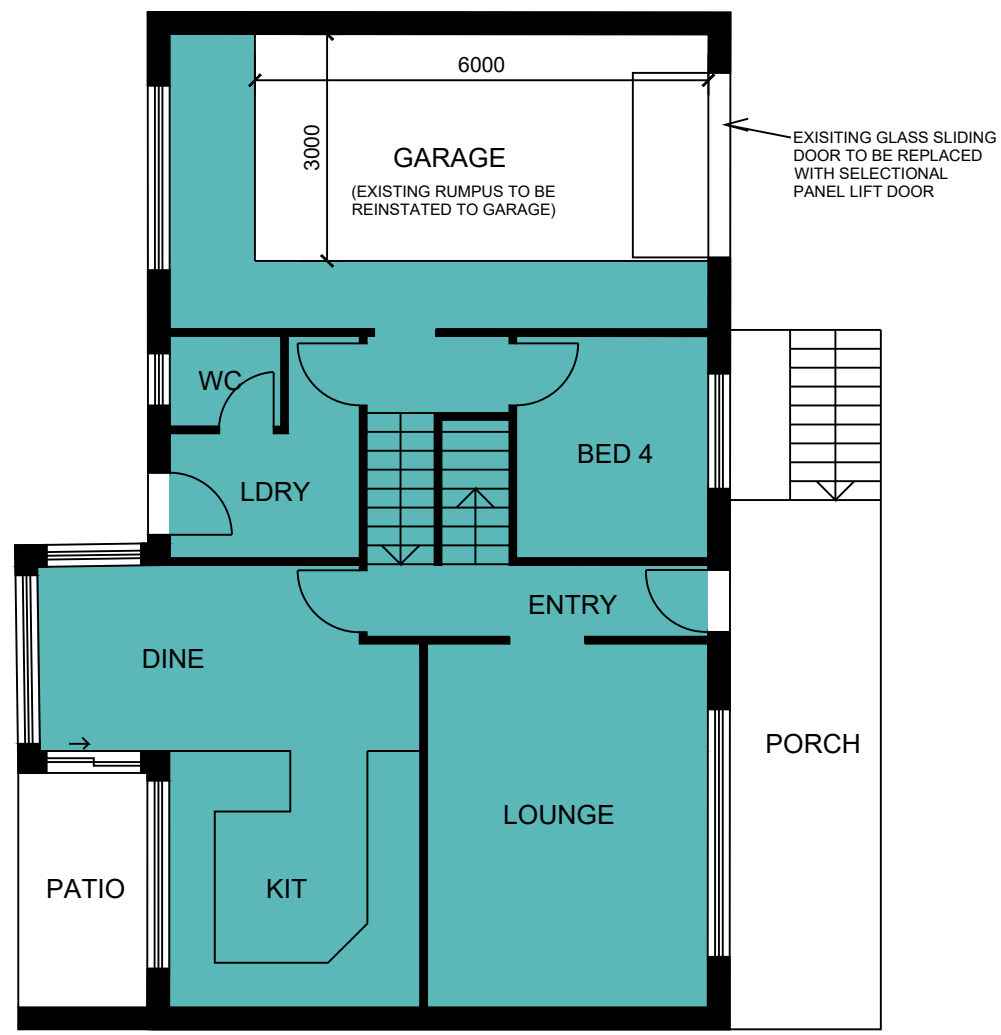
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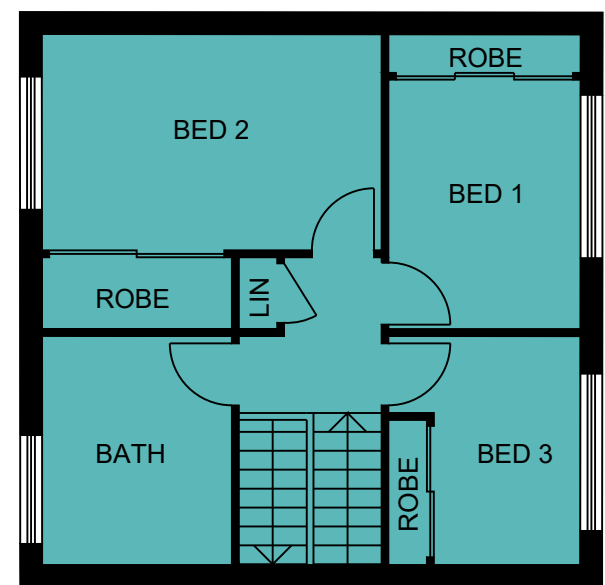
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GROUND FLOOR GFA = 77.92m2



FIRST FLOOR GFA = 49.99m2

PROPOSED LOT 211 - EXISTING RESIDENCE  
GROSS FLOOR AREA PLAN

SCALE: 1:100

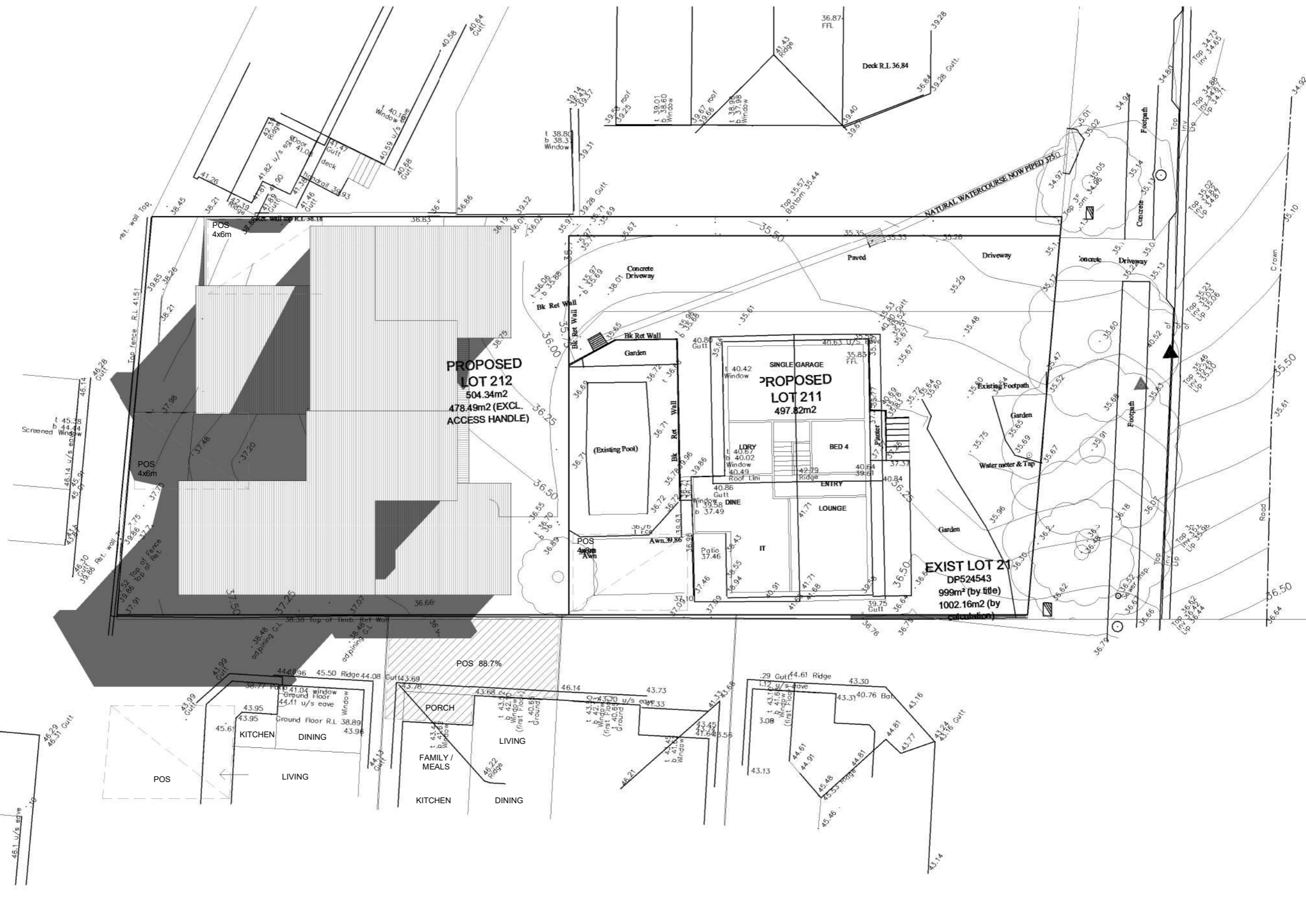


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SHADOWS - WINTER 9am



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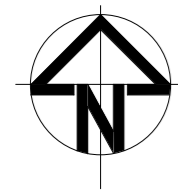
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SHADOWS - WINTER 1pm



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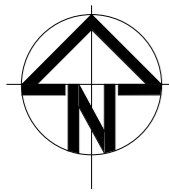
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SHADOWS - WINTER 2pm



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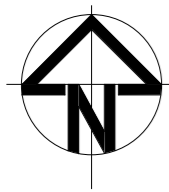
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SHADOWS - WINTER 3pm



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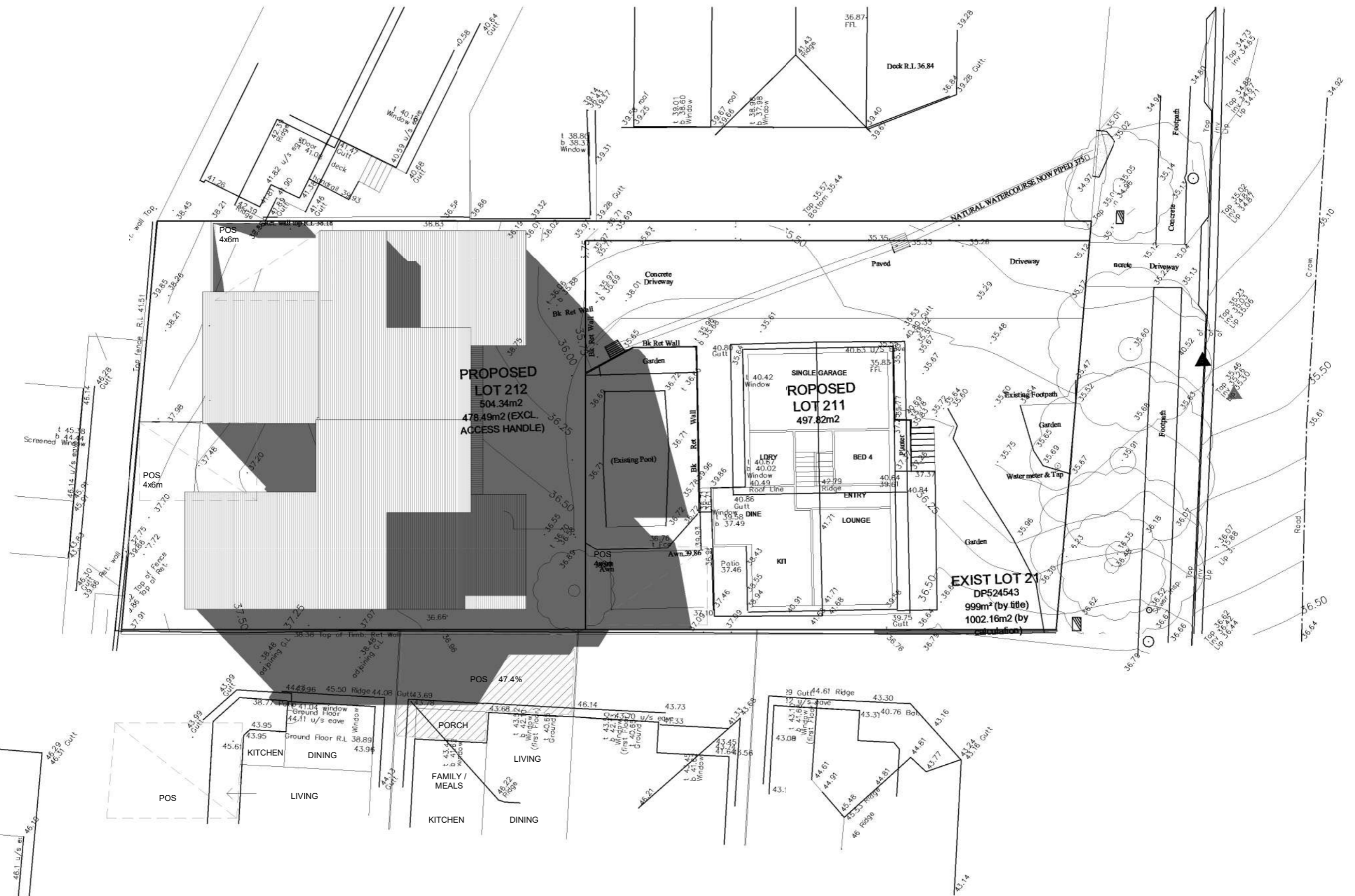
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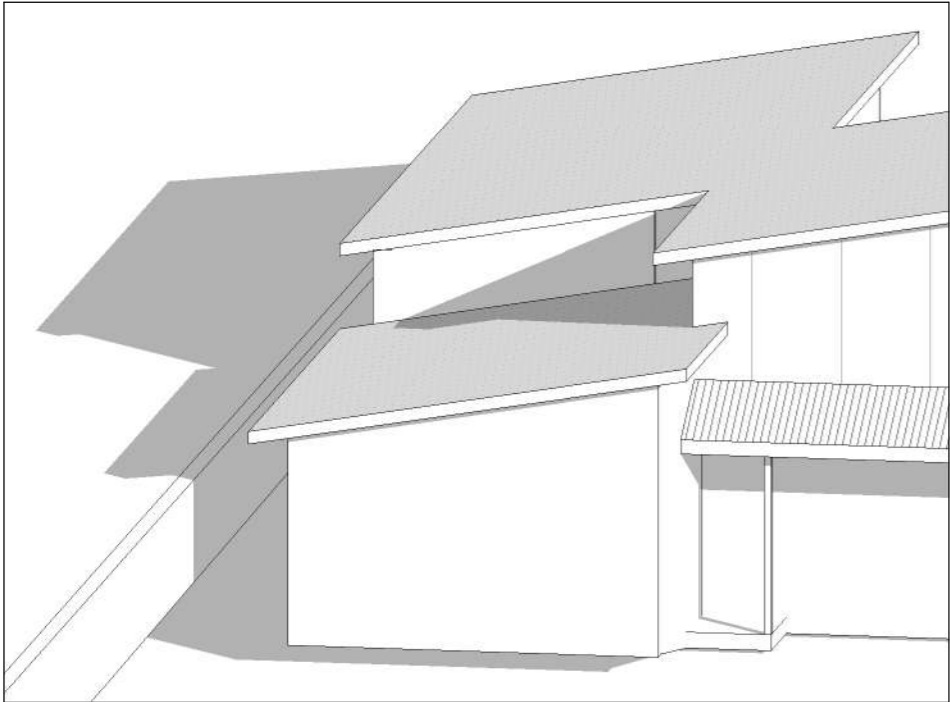
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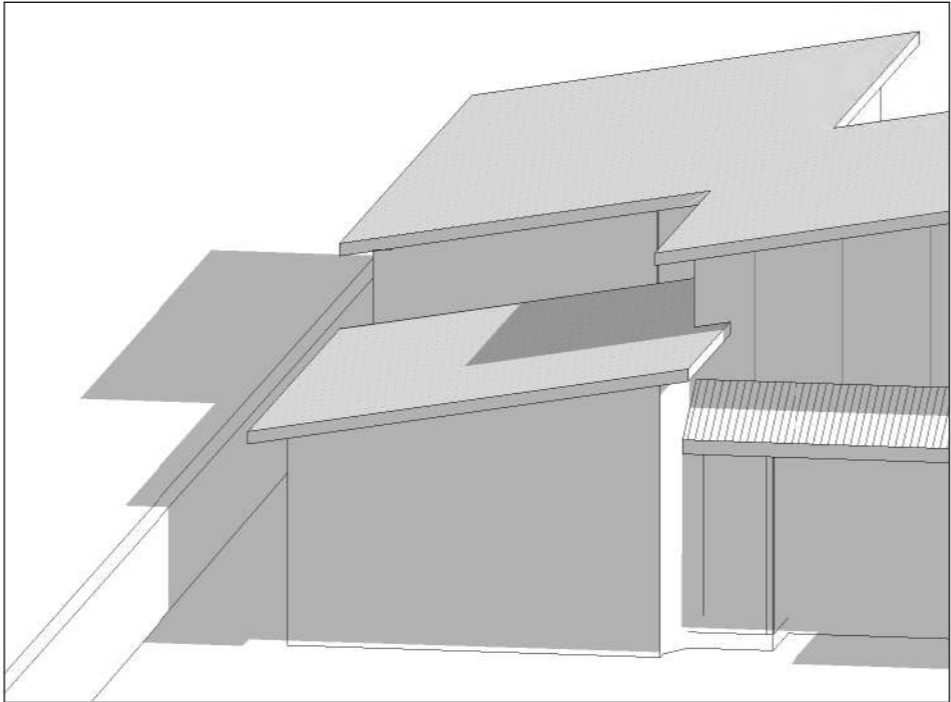




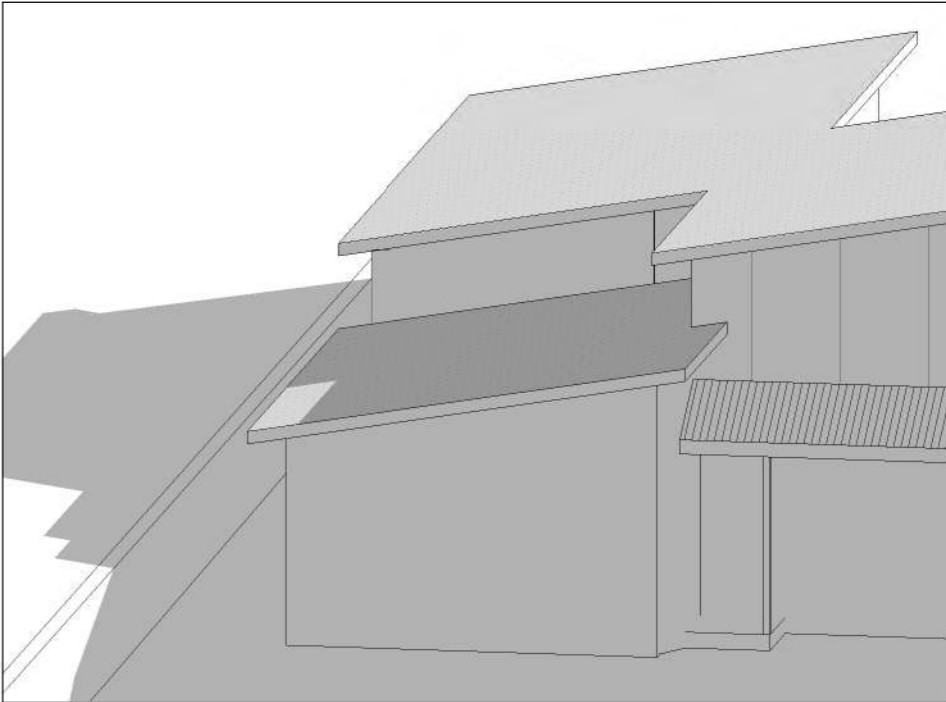
① VIEW OF EXISTING RETAINING WALL & TREES ON SOUTHERN BOUNDARY



3D Shadow - 9am



3D Shadow - 12pm



3D Shadow - 3pm

3D SHADOWS



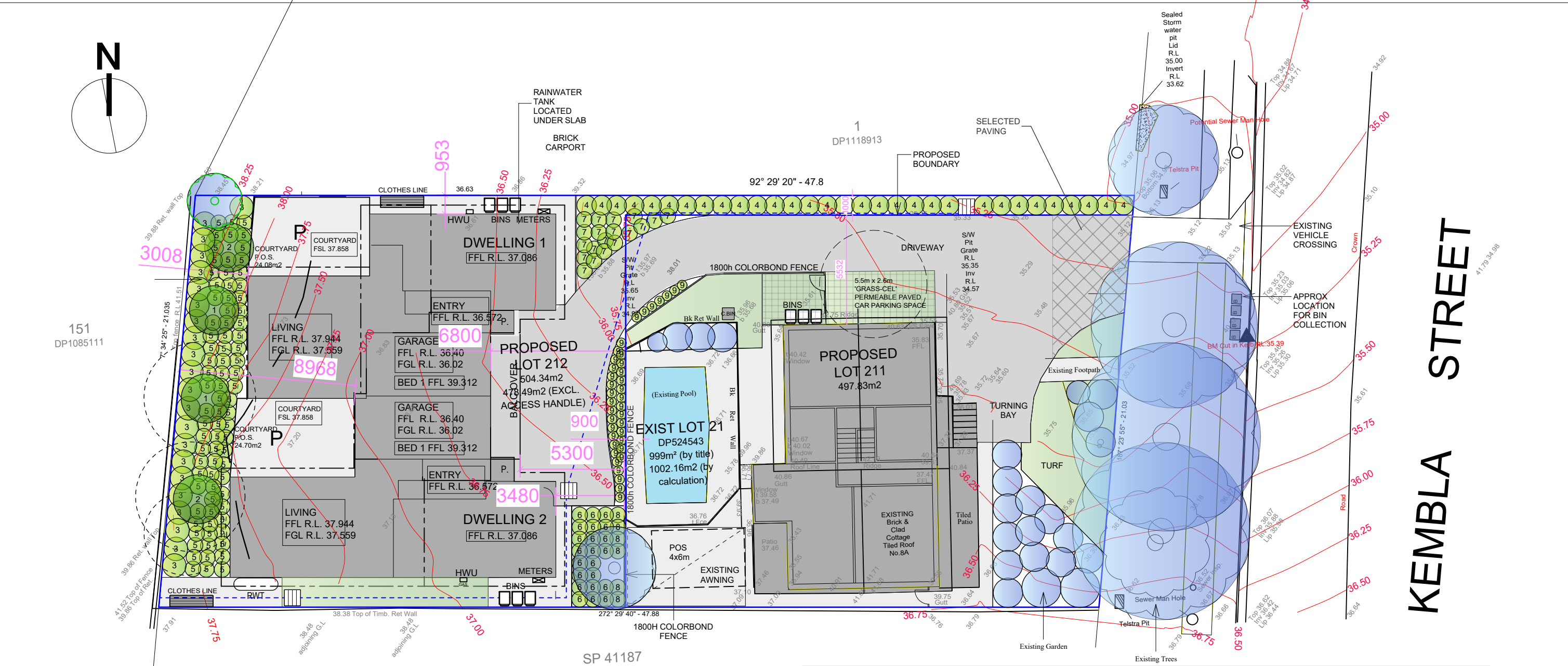
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PLANTING DETAILS

- 1- PLANT MATERIAL. Shall be pest and disease free and of correct shape and form. Plants should be well advanced in the growing container but not potbound.
- 2- STAKING Shall be hardwood timber stakes measuring 38x38x1800mm, three stakes per tree. Jute webbing or similar should be used to fix tree species to the stakes.
- 3- MULCHING. Is to be placed in all areas of planting to a depth of 75mm. Mulch should be of 25mm river stones, decorative gravel or similar. A consistent depth of mulch is to be maintained for a period of 12 months following initial landscape installation.

MAINTENANCE PROGRAMME

- 4- WATERING. Planted areas shall be watered regularly to ensure continuous and healthy growth. Water shall be frequently applied in the initial period following planting to the extent that healthy plant growth continues and establishment is rapid. Water shall be made available to all new plantings on as need basis, this is a climate dependant variable.
- 5- TURF. If required should be quality kikuyu, buffalo or varietal couch grass that is weed, pest and disease free. Turf shall be maintained at regular intervals with fortnightly cutting in the growing season and monthly cutting in the cool season months for the maintenance period. Cutting height shall ensure that turf is not scalped or damaged by mowing.
- 6- MAINTENANCE PERIOD. Shall be for a period of 12 months commencing from completion of initial landscape works.

LANDSCAPE PLANTING SCHEDULE

BOTANIC NAME	COMMON NAME	(H) x (W)	SIZE	QTY	STAKING
1 Magnolia 'Little Gem'	Little Gem	4 m x 3 m	300 mm	2	YES
2 Backhousia myrtifolia	Grey Myrtle	4 m x 3 m	300 mm	2	NO
3 Viburnum 'Dense Fence'	Dense Fence Viburnum	2.5 m x 1.5 m	200 mm	22	NO
4 Callistemon viminalis 'Slim'	Slim Bottlebrush	2.5 m x 1.3 m	200 mm	31	NO
5 Westringia fruticosa 'Mundi'	Mundi Westringia	0.5 m x 1.2 m	200 mm	79	NO
6 Lomandra longifolia 'Tanika'	Tanika Lomandra	0.8 m x 0.8 m	200 mm	22	NO
7 Gardenia augusta 'Florida'	Gardenia	1 m x 1 m	200 mm	19	NO
8 Buxus microphylla var. Japonica	Japanese Box	1.5 m x 0.8 m	200 mm	6	NO
9 Nandina domestica 'Gulf Stream'	Gulf Stream Nandina	0.8 m x 0.6 m	200 mm	39	NO

NO.	DATE	REVISION DETAILS	BY	PROJECT
A	27/07/20	REVISED LAYOUT	MS	LANDSCAPE DESIGN
B	13/08/20	REVISED LAYOUT	MS	
				ADDRESS
				LOT 21, No 8A KEMBLA STREET, BALGOWNIE

CLIENT	PROJECT #
SUSTAINABLE BY DESIGN	MS2019223
	DWG DATE 13 / 08 / 2020
	SCALE @ A1 1 : 200
	DRAWN BY MARK SPENCE
	FILE NAME 021KEM
	PAGE # PAGE 1 OF 1



**MARK SPENCE**  
ENVIRONMENTAL & LANDSCAPE SERVICES  
B.Env.Sc. (Hons.) Dip.Hort. (Landscape Design)  
Cert. 5 Hort. (Arboriculture), MPLA

PO Box 739, Wollongong NSW 2520  
Phone: (02) 42273650 / 0421642763  
Email: [markspence@optusnet.com.au](mailto:markspence@optusnet.com.au)

ABN: 54 132 590 517

CONTRACTOR IS TO VERIFY THE LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANY EXCAVATION.

2. CONTRACTOR SHALL CONFIRM ALL INVERTS AND GRADES PRIOR TO CONSTRUCTION.

3. ALL PIPES LESS THAN OR EQUAL TO Ø225mm ARE TO BE SOLVENT WELD-JOINTED SEWER GRADE UPVC CLASS 5H.

4. ALL PIPES ARE TO BE LAID AT (min) 1.0% GRADE (UND), UNLESS OTHERWISE NOTED ON DRAWINGS.

5. ALL CHARGED LINES FROM DOWNPIPES TO TANKS SHALL BE 100Ø UPVC CLASS 6 SOLVENT WELDED.

6. ALL LINES FROM TANK OVERFLOWS TO FIRST PITS SHALL BE 100Ø UPVC @ 1% MIN. FALL UNLESS NOTED OTHERWISE.

7. MATERIAL USED FOR BEDDING OF PIPES SHALL BE APPROVED NON-COHESIVE GRANULAR MATERIAL HAVING HIGH PERMEABILITY AND HIGH STABILITY WHEN SATURATED AND FREE OF ORGANIC AND CLAY MATERIAL.

8. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50mm CONCRETE BED (OR 75mm THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK.

9. BEDDING SHALL BE TYPE H52 UNDER ROADS; H2 GENERAL AREAS, IN ACCORDANCE WITH CURRENT RELEVANT INDUSTRY STANDARDS AND GUIDELINES.

10. PROVIDE 300mm MIN COVER TO PIPES NOT SUBJECT TO VEHICULAR LOADING TO AREAS WITHOUT PAVEMENT AND 500mm COVER IN AREAS SUBJECT TO CONSTRUCTION EQUIPMENT LOADING.

11. PROVIDE SEPARATION BETWEEN SERVICES IN ACCORDANCE WITH AS 3500.12. COVERS

USE HOT DIPPED GALVANISED COVERS AND GRATES COMPLYING WITH RELEVANT AUSTRALIAN STANDARDS.

12. UNLESS DETAILED OR SPECIFIED OTHERWISE COVERS AND GRATES TO BE CLASS "C" IN VEHICULAR PAVEMENTS AND CLASS "B" ELSEWHERE.

13. GRATED DRAINS SHALL BE MINIMUM 150x150 INTERNAL DIMENSIONS WITH 1% FALL (MIN.) TO THE INVERT OF THE GRATED DRAIN. GRATES TO DRAINS SHALL BE SUNK FLEXED INTO POSITION.

14. ALL MAN BODIES, JUNCTIONS, ETC. ARE TO BE PROVIDED USING PURPOSE MADE FITTING OR STORMWATER PITS.

15. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTERS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.

16. PIT DIMENSIONS SHALL BE IN ACCORDANCE WITH AS 3500.3 TABLE 8.2. ALL BASES OF PITS TO BE BENCHMARKED TO HALF PIPE DEPTH AND PROVIDE GALVANISED ANGLE SURROUNDS TO GRATE. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT PIPE PENETRATIONS SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.

17. INSPECTION OPENINGS SHALL BE INSTALLED WHERE REQUIRED IN ACCORDANCE WITH AS 3500.3.

18. THE CONTRACTOR SHALL ENSURE AND PROTECT THE INTEGRITY OF ALL STORMWATER PIPES DURING CONSTRUCTION. ANY AND ALL DAMAGE TO THESE PIPES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.

19. INSTALL TEMPORARY SEDIMENT BARRIERS TO INLET PITS, UNTIL SURROUNDING AREAS ARE PAVED AND TURRED.

20. HAND EXCAVATE STORMWATER PIPES IN VICINITY OF TREE ROOTS.

21. ALL ROOF GUTTERINGS AND DOWNPIPES TO AS/NZS 3500.3.2003. DOWNPIPES SHOWN ARE INDICATIVE ONLY.

22. Ø100mm SUB-SOIL DRAINAGE LINES WITH NON-WOVEN GEOTEXTILE SOCK SURROUND SHALL BE CONNECTED TO A STORMWATER DRAINAGE PIT (AT MIN. 1% LONGITUDINAL GRADE) AND PROVIDED IN THE FOLLOWING LOCATIONS:

A) AT THE HIGH SIDE OF PROPOSED TRAFFICKED AND CARPARK PAVEMENT AREAS

B) ALL PLANTER AND TREE BEDS PROPOSED ADJACENT TO PAVEMENT AREAS.

C) BETWEEN RETAINING WALLS (IN ACCORDANCE WITH DRAWINGS)

D) ALL OTHER AREAS SHOWN ON THE DRAWINGS.

23. THE CONTRACTOR SHALL INSTALL INSPECTION OPENINGS TO ALL SUBSOIL DRAINAGE LINES AND DOWNPIPE LINES AS SPECIFIED ON DRAWINGS AND AT MAXIMUM 60m CENTRES AND AT ALL UPSTREAM ENDPOINTS.

24. WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS SEALED UPVC SEWER GRADE PIPE SHALL BE USED.

25. PROVIDE 3.0m LENGTH OF Ø100 SUBSOIL DRAINAGE PIPE WORMAPPED IN A NON-WOVEN GEOTEXTILE FABRIC TO THE UPSTREAM SIDE OF STORMWATER PITS. LAID IN STORMWATER PIPE TRENCHES AND CONNECTED TO THE DRAINAGE PIT.

26. ALL OTHER STORMWATER WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3500.3 AND LOCAL COUNCIL DA CONDITIONS, DCP AND SPECIFICATIONS.

27. MAINTAIN PAVING AND FINISHED LANDSCAPE SURFACE LEVELS IN ACCORDANCE WITH THE BCA AND RELEVANT AUSTRALIAN STANDARDS ENSURING THAT SURFACE LEVELS FALL AWAY FROM BUILDING TO PREVENT PONDING OF WATER AGAINST THE BUILDING.

ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA, THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.

7. CARE IS TO BE TAKEN IN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATION, GASES OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.

8. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS, AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.

9. THE CONTRACTOR SHALL ALLOW FOR ADJUSTMENT (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS.

10. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF EXISTING SERVICES IN AREA AFFECTED BY WORKS UNLESS DIRECTED OTHERWISE ON THE DRAWINGS OR BY THE SUPERINTENDENT.

11. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.

12. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.

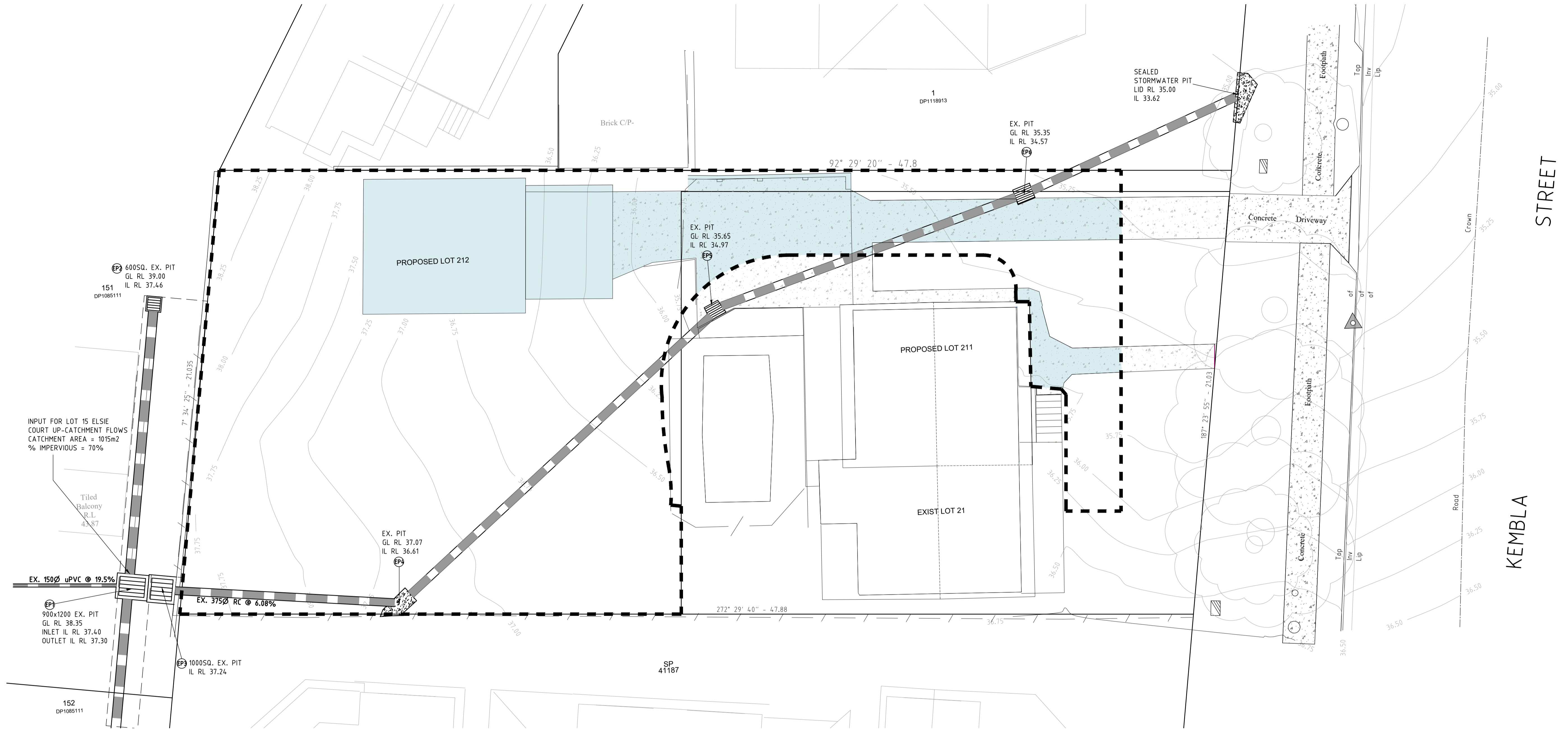
13. THE CONTRACTOR SHALL MAINTAIN TEMPORARY SERVICES TO MAINTAIN THE SUPPLY OF BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.

14. PRIOR TO THE COMMENCEMENT OF EXCAVATION, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL SERVICES AND WILL BE RESPONSIBLE FOR THE ADJUSTMENT AND REPAIR OF SERVICES.

15. ADJUST ALL UTILITY SERVICE COVERS TO SUIT NEW GRADES AND LEVELS TO THE SERVICE PROVIDERS SATISFACTION.

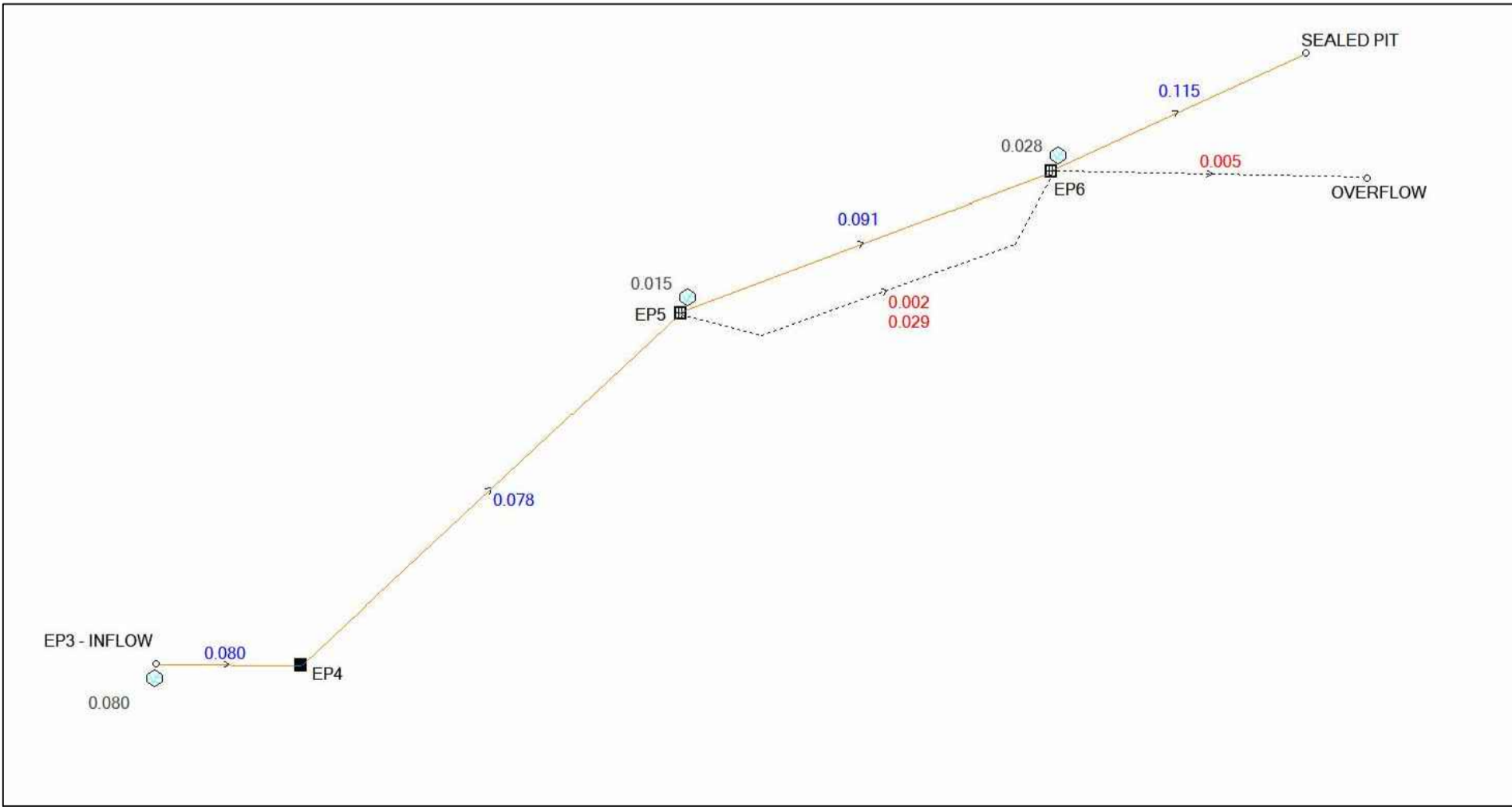
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							Drawn: P. Little
							Checked: S. Punnett
							Date: 25/10/2019
							Drawing No. 19258/C01
							Rev. —

FOR DA APPROVAL



PRE-DEVELOPED STORMWATER PLAN

- LEGEND**
- 35.17 PREDEVELOPED SPOT LEVEL
  - 35.00 EXISTING CONTOUR LINE (AHD)
  - EXISTING 375Ø PIPED WATERCOURSE
  - EXISTING PIT
  - DRAINAGE PIT NOTATION  
GL = GRATE LEVEL  
IL = INVERT LEVEL
  - TRIBUTARY BOUNDARY FOR PROPOSED OSD
  - IMPERVIOUS AREA WITHIN TRIBUTARY BOUNDARY



PRE-DEVELOPED DRAINS RESULTS (1% AEP)

FOR DA APPROVAL

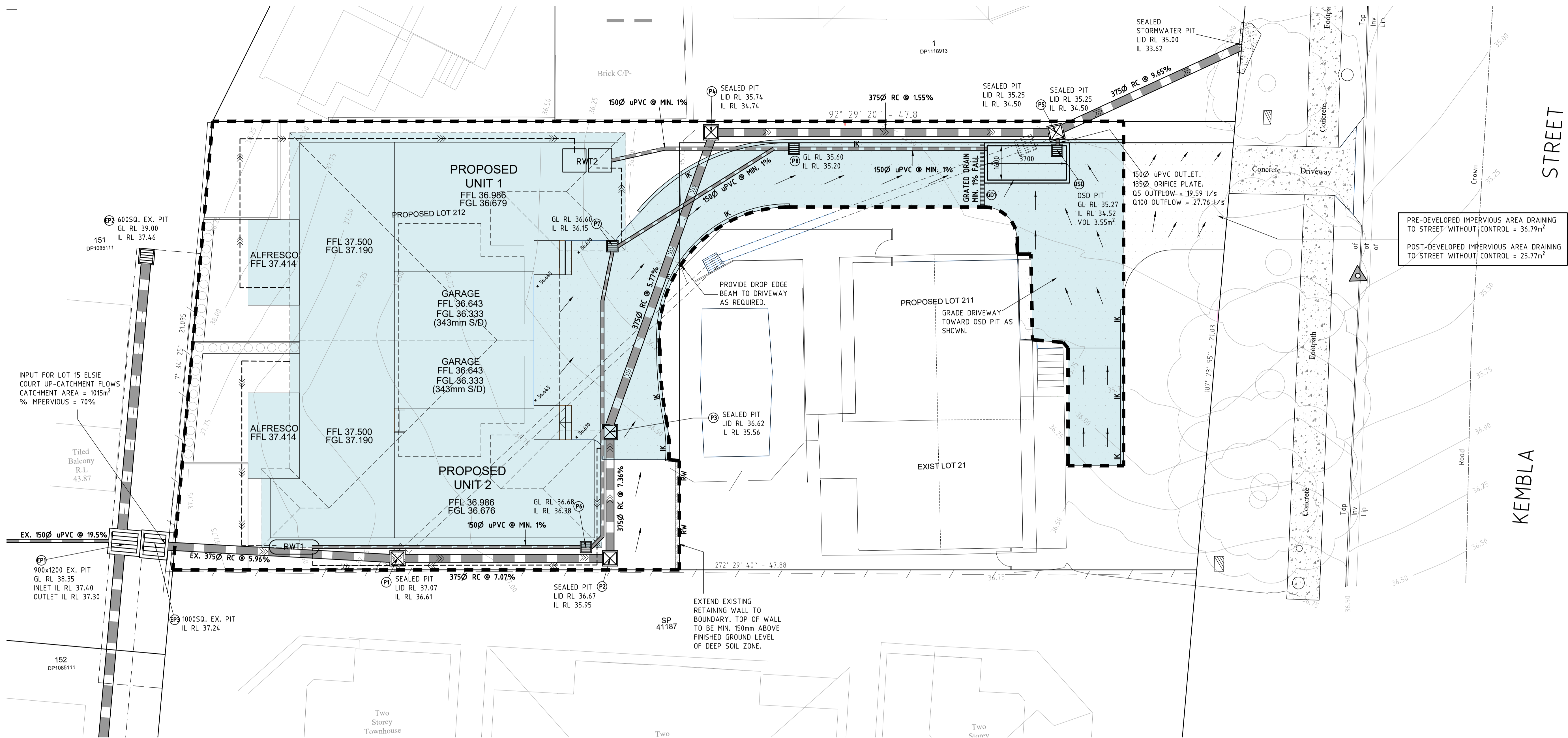
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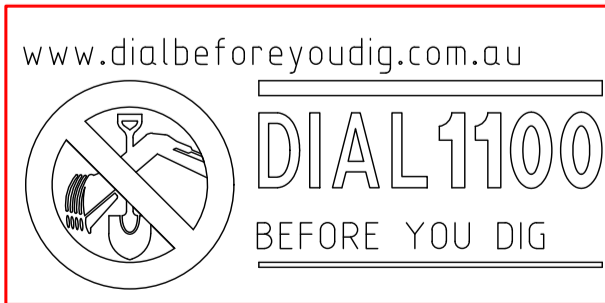
PRE-DEVELOPED STORMWATER PLAN		Design: P. Little
PROJECT: PROPOSED DUAL OCCUPANCY		Drawn: P. Little
AT: 8A KEMBLA STREET, BALGOWNIE		Checked: S. Punnett
FOR: DOMINIC SAFFOTI		Date: 25/10/2019
Drawing No. 19258/C02	Rev. -	



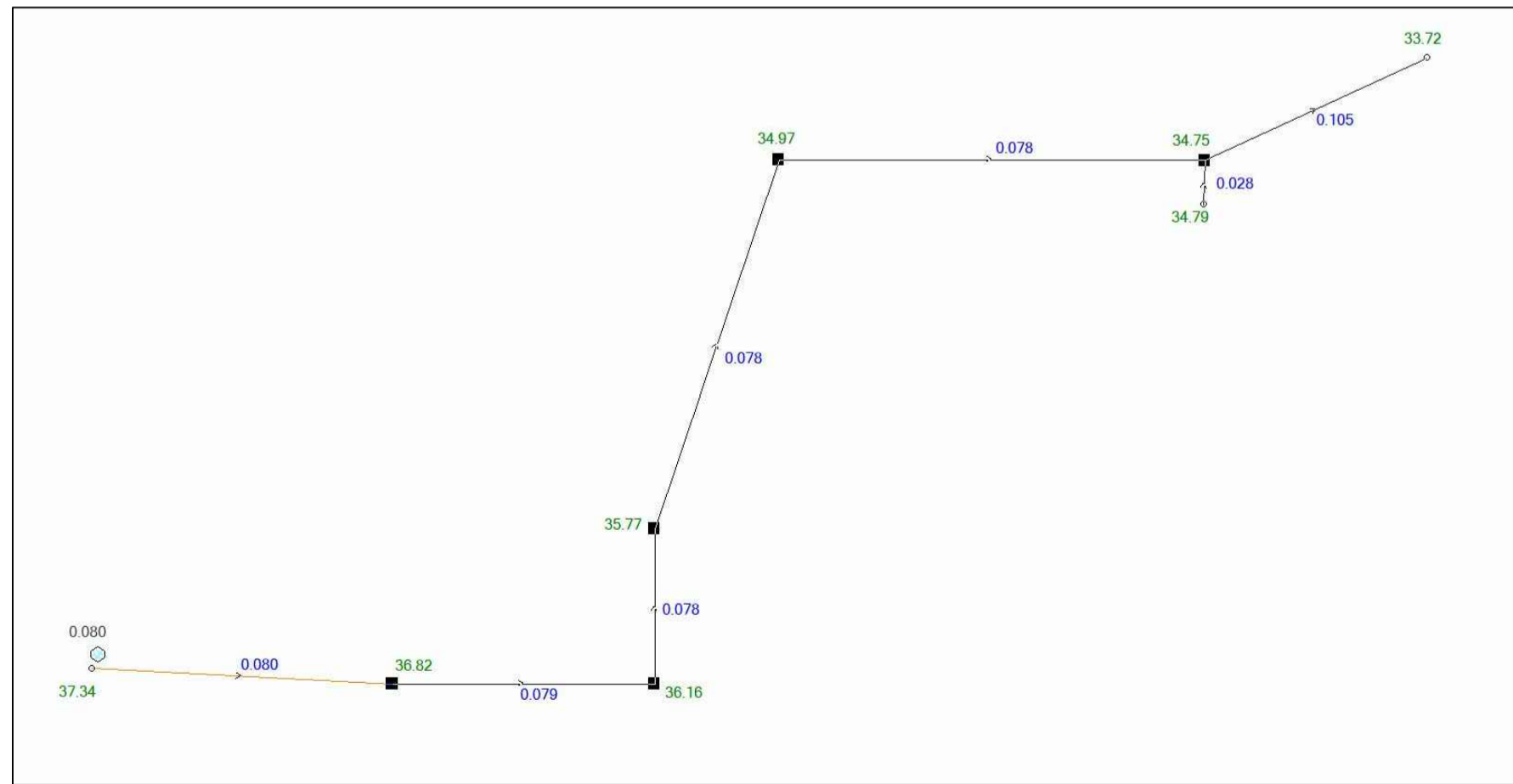
- LEGEND**
- 35.17 PREDEVELOPED SPOT LEVEL
  - 35.00 DEVELOPED SPOT LEVEL
  - 35.00 EXISTING CONTOUR LINE (AHD)
  - PROPOSED DRAINAGE LINES FROM PITS AND TANKS TO KERB
  - INDICATES 100Ø CHARGED PVC LINES TO RAIN WATER TANKS
  - RWT\* INDICATES RAINWATER TANK FOR RETENTION AND BASIX/OSD REQUIREMENTS.
  - IK INDICATES INTEGRAL KERB TO CONCRETE DRIVEWAY
  - SURFACE INLET PIT
  - SEALED STORMWATER PIT
  - DRAINAGE PIT NOTATION  
GL = GRATE LEVEL  
IL = INVERT LEVEL
  - RW INDICATES PROPOSED RETAINING WALL
  - TRIBUTARY BOUNDARY FOR PROPOSED OSD
  - IMPERVIOUS AREA WITHIN TRIBUTARY BOUNDARY
  - NEW HARDSTAND AREAS

CONCEPT STORMWATER PLAN

PLAN DATA		DRAINAGE CALCULATIONS					
SITE AREA (m <sup>2</sup> )		1002.20	STEP 1 - EXISTING TO PROPOSED		STEP 2 - NATURAL TO EXISTING		STEP 3 - FINAL
TRIBUTARY AREA (m <sup>2</sup> )		601.72	GRAPH OUTPUTS		GRAPH OUTPUTS		OSD REQUIRED
EXISTING IMPERVIOUS AREA (m <sup>2</sup> )		150.57	F <sub>15</sub> = 1.09	PSD <sub>5</sub> = 19.76 l/s	F <sub>15</sub> = 1.00	PSD <sub>5</sub> = 18.19 l/s	PSD <sub>5</sub> = 19.76 l/s
EXISTING % IMPERVIOUS OF TRIB.		25.02%	F <sub>100</sub> = 1.07	PSD <sub>100</sub> = 33.93 l/s	F <sub>100</sub> = 1.00	PSD <sub>100</sub> = 31.81 l/s	PSD <sub>100</sub> = 33.93 l/s
DEVELOPED IMPERVIOUS AREA (m <sup>2</sup> )		451.06	F <sub>2</sub> = 1.12	SSR <sub>5</sub> = 3.27 m <sup>3</sup>	F <sub>2</sub> = 1.12	SSR <sub>5</sub> = 1.30 m <sup>3</sup>	SSR <sub>5</sub> = 1.97 m <sup>3</sup>
DEVELOPED % IMPERVIOUS OF TRIB.		74.96%	F <sub>3</sub> = 0.17	SSR <sub>100</sub> = 5.62 m <sup>3</sup>	F <sub>3</sub> = 0.07	SSR <sub>100</sub> = 2.27 m <sup>3</sup>	SSR <sub>100</sub> = 3.35 m <sup>3</sup>
INTENSITY, I <sub>h</sub> <sup>30</sup> (mm/hr)		101	F <sub>4</sub> = 0.49	A = 601.72m <sup>2</sup>	F <sub>4</sub> = 0.49	A = 601.72m <sup>2</sup>	



SERVICES ARE TO BE POT HOLED PRIOR TO COMMENCEMENT OF WORKS AND CLEARANCE REQUIREMENT DISCUSSED WITH WESTLAKE PUNNETT & ASSOCIATES PTY LTD & THE SERVICE PROVIDERS.  
**NOTE:** NOT ALL UNDERGROUND SERVICES IN HAVE BEEN IDENTIFIED. AN UNDERGROUND SERVICES SEARCH SHOULD BE UNDERTAKEN PRIOR TO ANY EXCAVATION TAKING PLACE



POST DEVELOPED DRAINS FLOWS (1% AEP)

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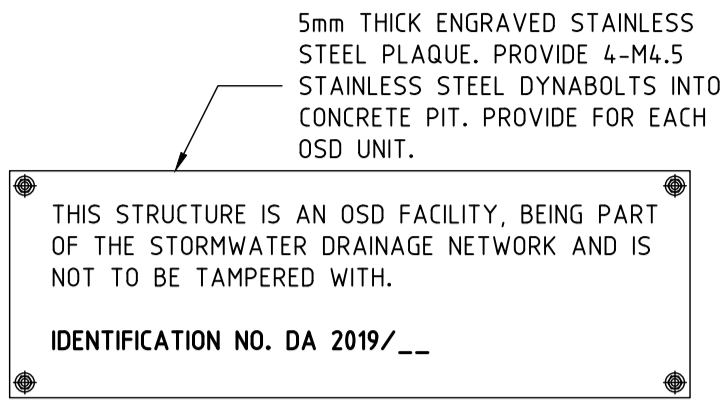
Rev.	Amendments	Approved	Date



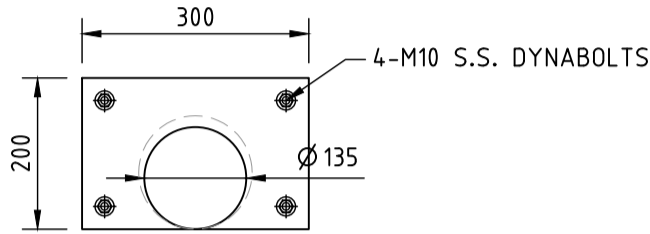
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CONCEPT STORMWATER PLAN  
PROJECT: PROPOSED DUAL OCCUPANCY  
AT: 8A KEMBLA STREET, BALGOWNIE  
FOR: DOMINIC SAFFOTI

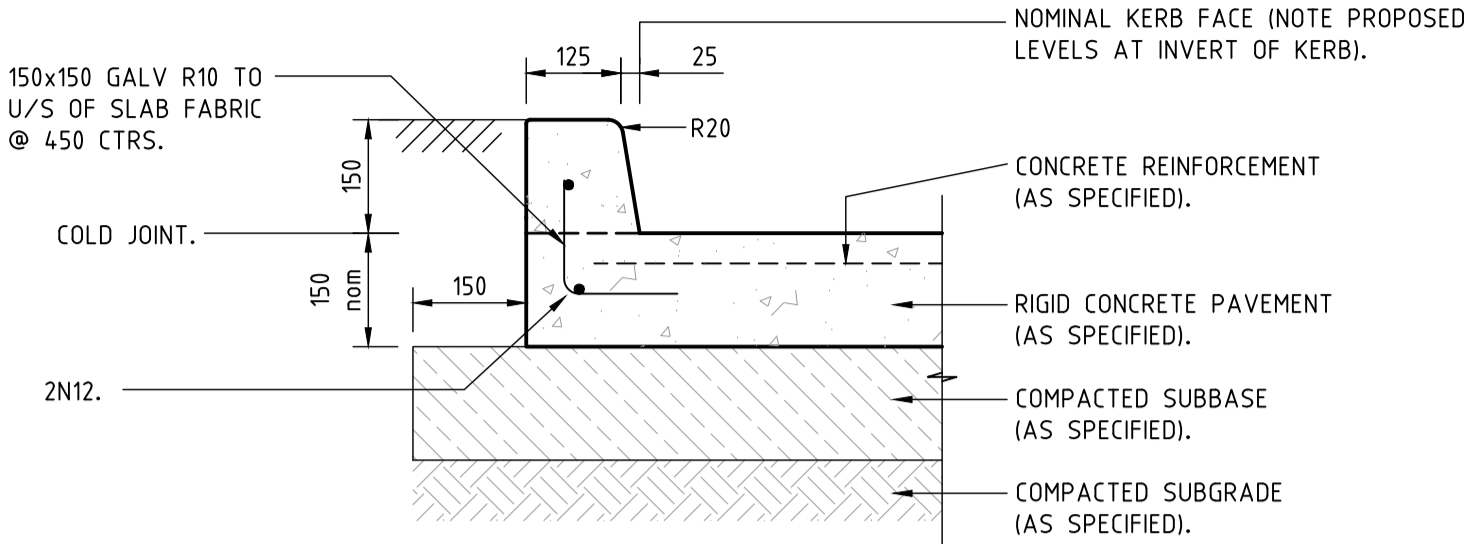
Design: P. Little	Rev
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Date: 25/10/2019	
Drawing No. 19258/C03	



IDENTIFICATION PLAQUE  
NOT TO SCALE

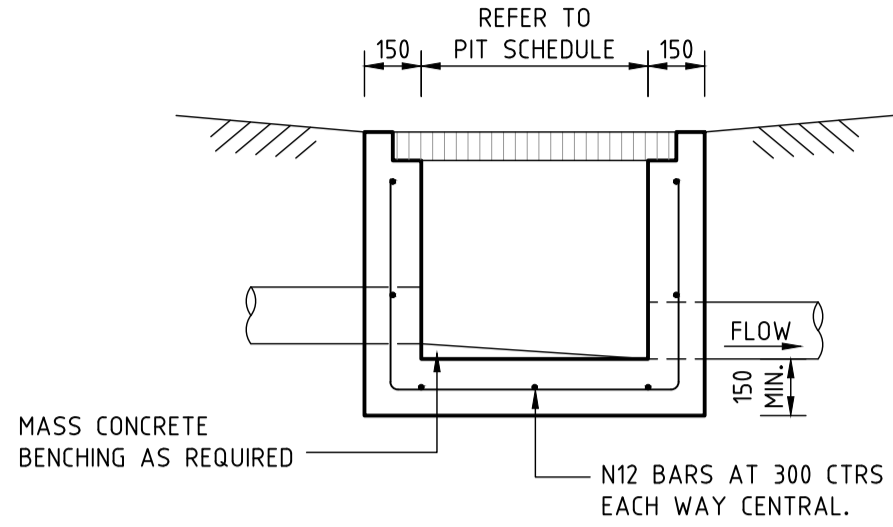


ORIFICE PLATE DETAIL  
SCALE (1:10)



INTEGRAL KERB DETAIL

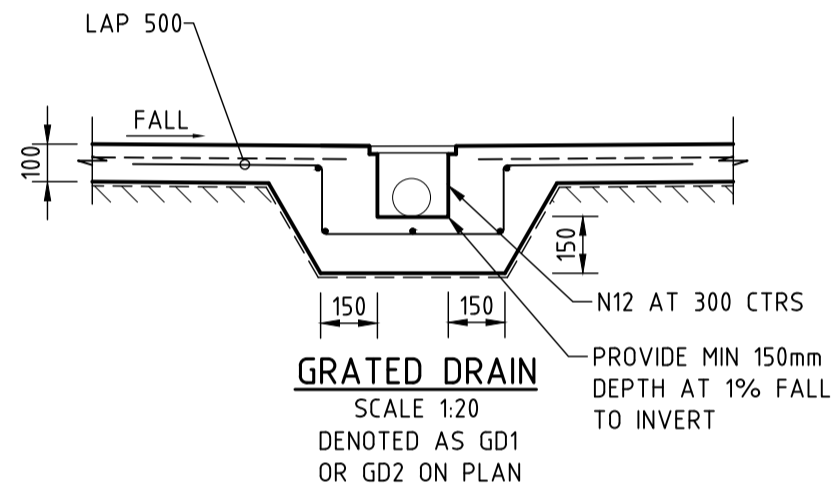
SCALE 1:10  
ALIGN KERB TOOLED JOINTS WITH PAVEMENT JOINTS @ MAX 3m CENTRES.  
ALL RADII TO BE 5mm UNLESS NOTED OTHERWISE.



TYPICAL SURFACE INLET PIT SECTION

SURFACE INLET PIT NOTES:

1. DEPTHS OF 450mm SQUARE PITS NOT TO EXCEED 600mm.
2. DEPTHS OF 600mm SQUARE PITS NOT TO EXCEED 900mm, OTHERWISE INCREASE ONE DIRECTION BY 300mm. (ie. 600x900 PIT).
3. PITS TO BE 900mm SQUARE WHERE DEPTH TO INVERT EXCEEDS 1200mm.
4. CLIMBING IRONS SHALL BE PROVIDED UNDER LID AT 300mm CTRS TO COUNCIL STANDARDS WHERE PIT DEPTH IS DEEPER THAN 1200mm.
5. CHARACTERISTIC CONCRETE STRENGTH,  $f'c = 20MPa$
6. APPROVED PRECAST CONCRETE PITS MAY BE USED IF PREFERRED. APPROVED PLASTIC PITS MAY BE USED IN LANDSCAPED AREAS IF PREFERRED.
7. PIT REINFORCEMENT NOT REQUIRED FOR PITS LESS THAN 600mm DEEP.



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STORMWATER DETAILS

PROJECT: PROPOSED DUAL OCCUPANCY

AT: 8A KEMBLA STREET, BALGOWNIE

FOR: DOMINIC SAFFOTI

Design: P. Little	Rev
Drawn: P. Little	
Checked: S. Punnett	
Date: 25/10/2019	
Drawing No. 19258/C04	

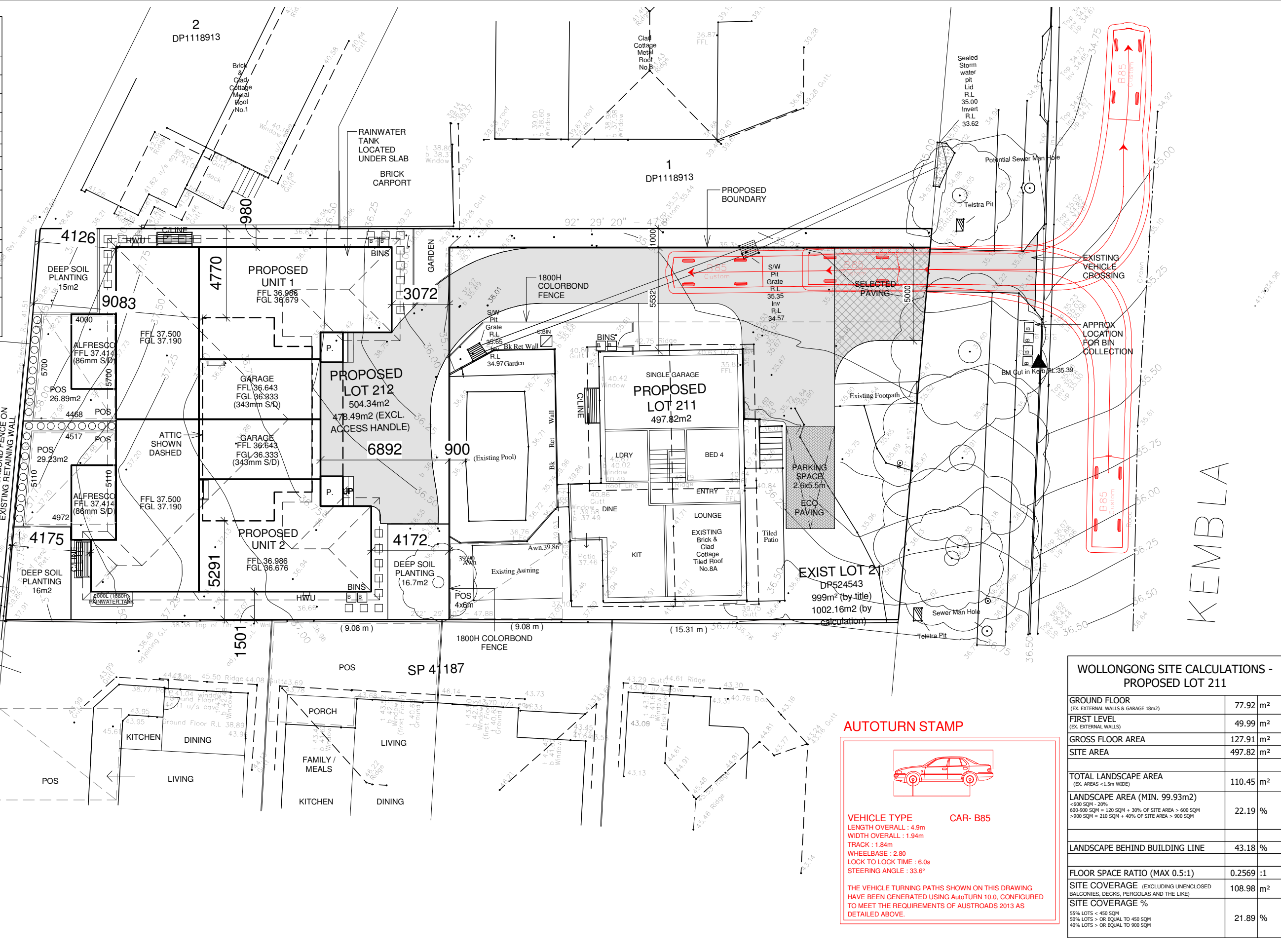
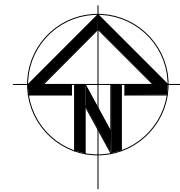
WOLLONGONG DUAL OCCUPANCY SITE CALCULATIONS - PROPOSED LOT 212

UNIT 1 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	91.96	m <sup>2</sup>
UNIT 1 ROOF SPACE (EX. EXTERNAL WALLS)	26.84	m <sup>2</sup>
UNIT 2 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	90.52	m <sup>2</sup>
UNIT 2 ROOF SPACE (EX. EXTERNAL WALLS)	26.84	m <sup>2</sup>
GROSS FLOOR AREA	236.16	m <sup>2</sup>
SITE AREA	478.49	m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	114.00	m <sup>2</sup>
LANDSCAPE AREA (MIN. 95.70m2) <600 SQM - 20% 600-900 SQM = 120 SQM + 30% OF SITE AREA > 600 SQM >900 SQM = 210 SQM + 40% OF SITE AREA > 900 SQM	23.82	%
DEEP SOIL ZONE (MIN. 47.5m2)	47.70	m <sup>2</sup>
LANDSCAPE BEHIND BUILDING LINE	94.46	%
FLOOR SPACE RATIO (MAX 0.5:1)	0.4936	:1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	236.47	m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	49.42	%

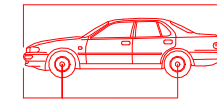
151  
DP1085111

EXISTING  
2 STOREY  
DWELLING

152  
DP1085111



AUTOTURN STAMP



VEHICLE TYPE CAR- B85  
LENGTH OVERALL : 4.9m  
WIDTH OVERALL : 1.94m  
TRACK : 1.84m  
WHEELBASE : 2.80  
LOCK TO LOCK TIME : 6.0s  
STEERING ANGLE : 33.6°

THE VEHICLE TURNING PATHS SHOWN ON THIS DRAWING  
HAVE BEEN GENERATED USING AutoTURN 10.0, CONFIGURED  
TO MEET THE REQUIREMENTS OF AUSTRROADS 2013 AS  
DETAILED ABOVE.

WOLLONGONG SITE CALCULATIONS - PROPOSED LOT 211

GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE 18m2)	77.92	m <sup>2</sup>
FIRST LEVEL (EX. EXTERNAL WALLS)	49.99	m <sup>2</sup>
GROSS FLOOR AREA	127.91	m <sup>2</sup>
SITE AREA	497.82	m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	110.45	m <sup>2</sup>
LANDSCAPE AREA (MIN. 99.93m2) <600 SQM - 20% 600-900 SQM = 120 SQM + 30% OF SITE AREA > 600 SQM >900 SQM = 210 SQM + 40% OF SITE AREA > 900 SQM	22.19	%
LANDSCAPE BEHIND BUILDING LINE	43.18	%
FLOOR SPACE RATIO (MAX 0.5:1)	0.2569	:1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	108.98	m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	21.89	%

TURNING STUDIES - 1



Suite 14, 41 Market Street  
Wollongong NSW 2500  
PH: 42283664

CLIENT  
SAFFIOTI

SITE  
LOT 21 D.P. 524543

8A KEMBLA STREET  
BALGOWNIE 2519

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DRAWN: S.R.P

DATE: 16.09.19

SCALE: 1 : 200 @ A3

JOB NO: 021KEM

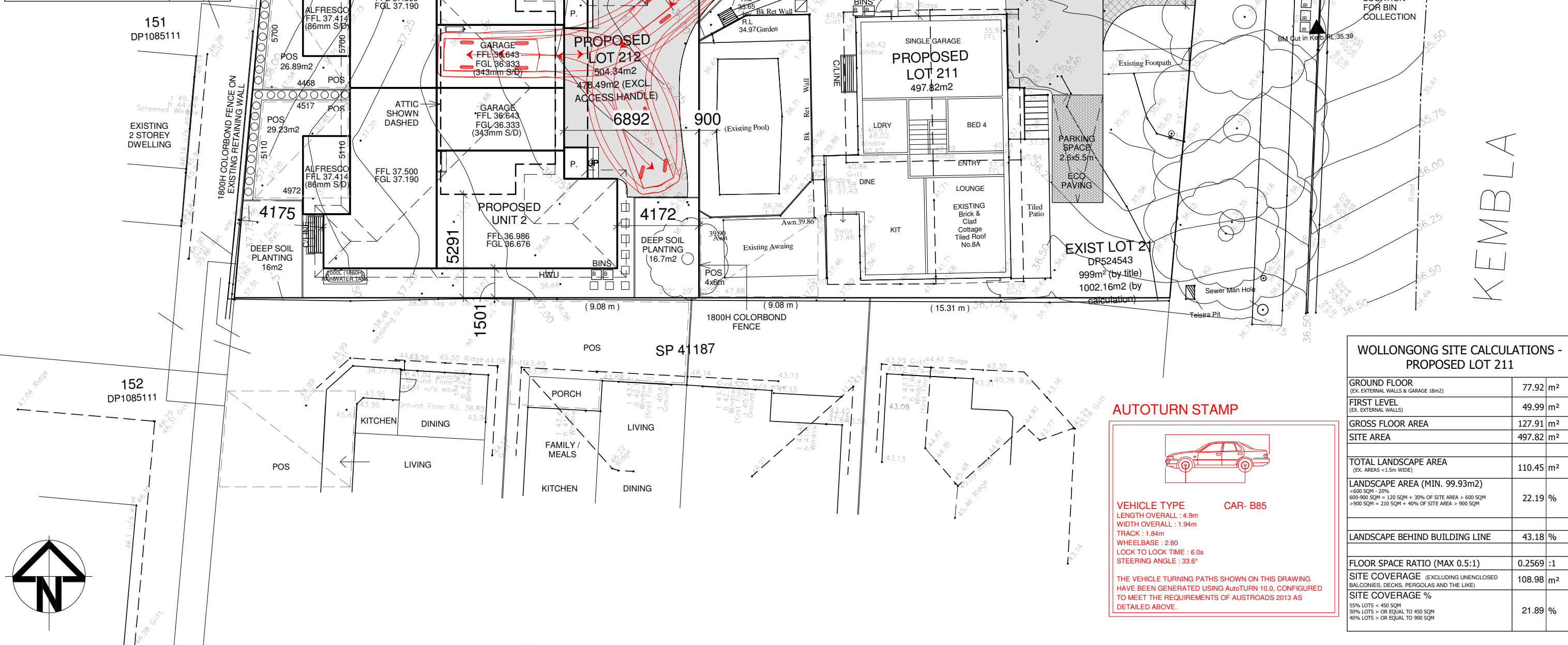
ISSUE

J

SHEET NO.

18

WOLLONGONG DUAL OCCUPANCY SITE CALCULATIONS - PROPOSED LOT 212	
UNIT 1 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	91.96 m <sup>2</sup>
UNIT 1 ROOF SPACE (EX. EXTERNAL WALLS)	26.84 m <sup>2</sup>
UNIT 2 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	90.52 m <sup>2</sup>
UNIT 2 ROOF SPACE (EX. EXTERNAL WALLS)	26.84 m <sup>2</sup>
GROSS FLOOR AREA	236.16 m <sup>2</sup>
SITE AREA	478.49 m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	114.00 m <sup>2</sup>
LANDSCAPE AREA (MIN. 95.70m2) <600 SQM = 20% 600-900 SQM = 30% OF SITE AREA > 600 SQM >900 SQM = 40% OF SITE AREA > 900 SQM	23.82 %
DEEP SOIL ZONE (MIN. 47.5m2)	47.70 m <sup>2</sup>
LANDSCAPE BEHIND BUILDING LINE	94.46 %
FLOOR SPACE RATIO (MAX 0.5:1)	0.4936 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	236.47 m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	49.42 %



**AUTOTURN STAMP**

**VEHICLE TYPE** CAR- B85

LENGTH OVERALL : 4.9m  
WIDTH OVERALL : 1.94m  
TRACK : 1.84m  
WHEELBASE : 2.80  
LOCK TO LOCK TIME : 6.0s  
STEERING ANGLE : 33.6°

THE VEHICLE TURNING PATHS SHOWN ON THIS DRAWING HAVE BEEN GENERATED USING AutoTURN 10.0, CONFIGURED TO MEET THE REQUIREMENTS OF AUSTRROADS 2013 AS DETAILED ABOVE.

WOLLONGONG SITE CALCULATIONS - PROPOSED LOT 211	
GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE 18m2)	77.92 m <sup>2</sup>
FIRST LEVEL (EX. EXTERNAL WALLS)	49.99 m <sup>2</sup>
GROSS FLOOR AREA	127.91 m <sup>2</sup>
SITE AREA	497.82 m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	110.45 m <sup>2</sup>
LANDSCAPE AREA (MIN. 99.93m2) <600 SQM = 20% 600-900 SQM = 30% OF SITE AREA > 600 SQM >900 SQM = 40% OF SITE AREA > 900 SQM	22.19 %
LANDSCAPE BEHIND BUILDING LINE	43.18 %
FLOOR SPACE RATIO (MAX 0.5:1)	0.2569 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	108.98 m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	21.89 %

## TURNING STUDIES - 2



Suite 14, 41 Market Street  
Wollongong NSW 2500  
PH: 42283664

<b>CLIENT</b> SAFFIOTI  <b>SITE</b> LOT 21 D.P. 524543  8A KEMBLA STREET BALGOWNIE 2519	COPYRIGHT IN THIS DOCUMENT IS OWNED BY SUSTAINABLE BY DESIGN PTY LTD. UNDER THE PROVISIONS OF THE COPYRIGHT ACT 1968 AND IS INTENDED FOR USE ONLY AS AUTHORISED BY SUSTAINABLE BY DESIGN PTY LTD		<b>ISSUE</b>  J  <b>SHEET NO.</b>  19
	<b>DRAWN:</b> S.R.P <b>SCALE:</b> 1 : 200 @ A3	<b>DATE:</b> 16.09.19 <b>JOB NO:</b> 021KEM	





## **Arboricultural Impact Assessment Report**

For the site address  
Lot 21 (DP 524543)  
No. 8A Kembla Street,  
BALGOWNIE NSW

Prepared for  
Sustainable by Design P/L

**AUTHOR**  
Geoff Beisler and Warwick Varley

**STATUS**  
Final                      October 2019

**REFERENCE**                      D3916

**OFFICE**

**A** PO Box 456, WOLLONGONG NSW 2520  
**P** 1300 767 414  
**E** admin@alliedtrees.com.au  
**W** www.alliedtrees.com.au

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## 1.0 Introduction

**1.1** Allied Tree Consultancy (ATC) has been commissioned by *Sustainable by Design* to prepare an Arboricultural Impact Assessment for the development proposal at No. 8A Kembla Street Balgownie. This proposal includes a two-lot sub-division, and the construction of a duplex, residential dwelling development. This report includes thirteen trees located on, and adjacent to the lot, and discusses the viability of these trees based on the proposed works.

**1.2** This report will address for these trees, the:

- species' identification, location, dimensions, and condition;
- SULE (Safe Useful Life Expectancy) and STARS (Significance of a Tree Assessment Rating System) rating;
- discussion and impact of the proposed works on each tree;
- tree protection zones and protection specifications for trees recommended for retention.

**1.3** The subject site resides within Balgownie; for this reason, Wollongong City Council is the consenting authority for any tree works recommended in this report.

## 2.0 Standards

**2.1** Allied Tree Consultancy provides an ethical and unbiased approach to all assignments, possessing no association with private utility arboriculture or organisations that may reflect a conflict of interest.

**2.2** This report must be made available to all contractors during the tendering process so that any cost associated with the required works for the protection of trees can be accommodated.

**2.3** It is the responsibility of the project manager to provide the requirements outlined in this report relative to the Protection Zones, Measures (Section 7.0) and Specifications (Section 8.0) to all contractors associated with the project before the initiation of work.

**2.4** All tree-related work outlined in this report is to be conducted in accordance with the:

- Australian Standard – AS4373; Pruning of Amenity Trees.
- Guide to Managing Risks of Tree Trimming and Removal Work<sup>1</sup>.

---

<sup>1</sup> Safe Work Australia; July 2016; Guide to Managing Risks of Tree Trimming and Removal Work, Australia

- All tree works must be carried out at a tertiary level (minimum Certificate-level 3) qualified and experienced (minimum five years) arboriculturist.
- For any works in the vicinity of electrical lines, the arboriculturist must possess the ISSC26 endorsement (Interim guide for operating cranes and plant in proximity to overhead powerlines).

**2.5** As a minimum requirement, all trees recommended for retention in this report must have removed all dead, diseased, and crossing limbs and branch stubs to be pruned to the branch collar. This work must comply with the local government tree policy (Wollongong City Council) and Section 2.4.

**2.6** Any tree stock subject to conditions for works carried out in this report must be supplied by a registered Nursery that adheres to the AS 2303; 2015<sup>2</sup>.

- All tree stock must be of at least 'Advanced' size (minimum 75lt) unless otherwise requested.
- All tree stock requested must be planted with adequate protection. This may include tree guards (protect stem and crown) and if planted in a lawn area, a suitable barrier (planter ring) of an area, at least, 1m<sup>2</sup> to prevent grass from growing within the area adjacent to the stem.

### **3.0 Disclosure Statement**

Trees are living organisms and, for this reason, possess natural variability. This cannot be controlled. However, risks associated with trees can be managed. An arborist cannot guarantee that a tree will be safe under all circumstances, nor predict the time when a tree will fail. To live or work near a tree involves some degree of risk, and this evaluation does not preclude all the possibilities of failure.

### **4.0 Methodology**

**4.1** The following tree assessment was undertaken using criteria based on the guidelines laid down by the International Society of Arboriculture.

**4.2** The format of the report is summarised below;

**4.2.1 Plan 1; Tree Location Relative to Site:** This is an unscaled plan reproduced from the Survey Plan as referenced in Section 4.4.1, depicting the area of assessment.

---

<sup>2</sup> Australian Standard; 2015, AS2303, Tree stock for landscape use, Australia

**4.2.2 Table 1;** This table compiles the tree species, dimensions, brief assessment (history, structure, pest, disease or any other variables subject to the tree), significance, allocation of the zones of protection (i.e., Tree Protection Zone<sup>3</sup>; TPZ and Structural Root Zone; SRZ) for each tree illustrated in Plan 1, Section 5.0. All measurements are in metres.

**4.2.3 Discussion relating to the site assessment and proposed works regarding the trees.**

**4.2.4 Protection Specification;** Section 8.0 details the requirements for that area designated as the Tree Protection Zone (TPZ), for those trees recommended for retention.

**4.3** The opinions expressed in this report, and the material, upon which they are based, were obtained from the following process and data supplied:

**4.3.1** Site assessment on the 22<sup>nd</sup> October 2019 using the method of the Visual Tree Assessment<sup>4</sup>. This has included a Level 2 risk assessment, being a *Basic Assessment*<sup>5</sup>. The assessment has been conducted by Geoff Beisler<sup>6</sup> on behalf of *Allied Tree Consultancy*.

**4.3.2** Trees included in this report are those that conform to the description of a prescribed tree by the local government policy.

**4.3.3** All measurements, unless specified otherwise are taken from the tree centre.

**4.3.4** Raw data from the preliminary assessment including the specimen's dimensions was compiled by the use of a diameter tape, height clinometer, angle finder, compass, steel probes, Teflon hammer, binoculars and recording instruments.

#### **4.4 Documentation provided**

The following documentation has been provided to Allied Tree Consultancy and utilised within the report.

---

<sup>3</sup> Australian Standard, 4970; 2009 – Protection of Trees on Development Sites, Australia

<sup>4</sup> Mattheck, C. Breloer, H., 1994, The Body Language of Trees – A handbook for failure analysis The Stationary Office, London

<sup>5</sup> Dunster J.A., 2013, Tree Risk Assessment Manual, International Society of Arboriculture, 2013, USA

<sup>6</sup> Consulting Arborist, Diploma of Arboriculture (level 5)

**4.4.1 Surveyor**

Drawn by *Masters Surveying*  
Date: 15 May 2019  
Reference: (Job No.) W19056-1  
Drawing No: W19056 Sheet 1 of 1  
Note 1: See Section 4.5.1

**4.4.2 Design**

Drawn by *Sustainable By Design*  
Date: 16 September 2019  
Reference: (Job No.) 021KEM  
Drawing No: Sheet No. 3, issue J

**4.4.3 Engineering (Stormwater)**

Drawn by *Westlake Punnett*  
Date: 25 October 2019  
Reference: not referenced  
Drawing No: 19258/C03

**4.4.4 Document**

Pre-lodgement Notes  
Author: *Wollongong City Council*  
Date: 15 August 2019,  
Reference: PL-2019/115  
Pagination; 5 Pages

**4.4.5 Document**

Landscape Design  
Author: *Mark Spence Environment and Landscape design*  
Date: 4 October 2019  
Reference: (Project No.) MS2019223  
Drawing No: 1 of 1

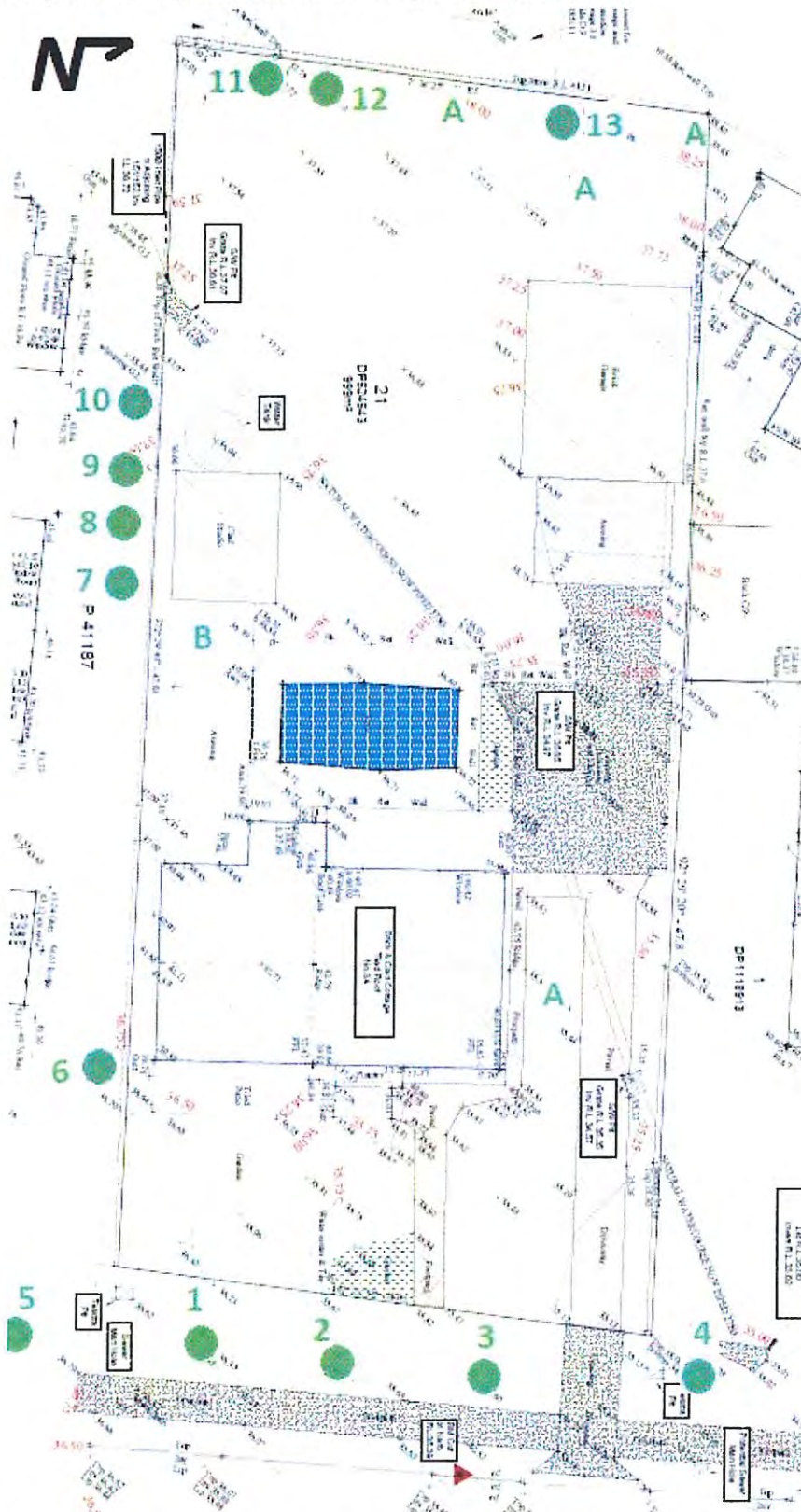
**4.5 Limitations of the assessment/discussion process**

- 4.5.1** Trees No. 5-10 have been omitted from the plans provided, however, are required for inclusion because they conform to the definition of a prescribed tree within the local government tree policy. The tree location has been plotted onto the Plan 1 by *Allied Tree Consultancy*. The tree location was established by measuring from known points and scaling onto the drawing. *Allied Tree Consultancy* is not a registered surveyor and, however, the accuracy of the survey is attempted; the true position of the

trees may marginally deviate. Any such deviation provides the potential for changing the actual impact (encroachment) provided to a tree.

- 4.5.2** The assessment has considered only those target zones that are apparent to the author and the visually apparent tree conditions, during the time of assessment.
- 4.5.3** Any tree regardless of apparent defects would fail if the forces applied to exceed the strength of the tree or its parts, for example, extreme storm conditions.
- 4.5.4** The assessment has been limited to that part of the tree which is visible, existing from the ground level to the crown. Root decay can exist and in some circumstances provide no symptoms of the presence. This assessment responds to all the symptoms provided by a tree, however, cannot provide a conclusive recommendation regarding any tree that may have extensive root decay that leads to windthrow without the appropriate symptoms.

### 5.0 Plan 1; Area of assessment illustrating tree location



Not to scale

Trees labelled A, were absent. Trees labelled B are less than 3m. See Section 7.0.

Source: Adapted from *Masters surveying*, see Section 4.4.1

## 6.0 Table 1 – Tree Species Data

Terminology/references provided in Appendix A.

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
1	<i>Lophostemon confertus</i> Brush Box	10	0.78 <sup>B</sup>	8 x 8	M	C	Sym.	A	B1	HIGH	9.4	3.0
<b>Assessment</b> This council-owned street tree is typical for the species, however co-dominant at the base. A juvenile <i>Ficus</i> , is emerging from the basal union. <b>Proposed works;</b> See Section 7.1.2												
2	<i>Lophostemon confertus</i> Brush Box	10	0.48	8 x 8	M	C	Sym.	A	B1	HIGH	5.8	2.4
<b>Assessment</b> This council owned street tree is typical for the species. <b>Proposed works;</b> See Section 7.1.1												
3	<i>Lophostemon confertus</i> Brush Box	11	0.35 0.27	6 x 7	M	C	Sym.	A-B	A2	MEDIUM	5.3	2.3
<b>Assessment</b> This council owned street tree is typical for the species, however exhibits some twiggy decline in the mid-crown, northern side. The lower crown, southern side has received crown lift pruning to accommodate the electrical service line- some epicormic growth is present. <b>Proposed works;</b> See Section 7.1.2												
4	<i>Eucalyptus cladocalyx</i> Sugar Gum	9	0.32	5 x 8	M	I	N	A-B	A2	MEDIUM	3.8	2.1
<b>Assessment</b> This council owned street tree is typical for the species. A first order branch (mid crown, eastern side) exhibits decline. A dead branch terminating in a stub cut is located 4m, eastern side <b>Proposed works;</b> See Section 7.1.3												
5	<i>Melaleuca viminalis</i> Weeping Red Bottlebrush	6	0.47 <sup>B</sup>	6 x 7	M	D	Sym.	A	B1	MEDIUM	5.6	2.4
<b>Assessment</b> This council-owned street tree is typical for the species. <b>Proposed works;</b> See Section 7.1.1												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
6	<i>Ligustrum sinense</i> Small Leaved Privet	4	0.15 <sup>c</sup>	4 x 4	M	D	N	A	A2 <sup>c</sup>	LOW	2.0	1.5
<b>Assessment</b> This neighbouring tree presents as typical for the species. Not located on the survey, it is situated approximately 300mm from the boundary fence. Crown ingress into the lot of assessment is 1700mm at 3m. Limited assessment due to lack of access. <b>Proposed works;</b> See Section 7.1.1												
7	<i>Leptospermum petersonii</i> Lemon Scented Tea tree	5	0.15 <sup>c</sup>	4 x 4 <sup>c</sup>	M	C	N	A	A2 <sup>c</sup>	MEDIUM	2.0	1.5
<b>Assessment</b> This neighbouring tree presents as typical for the species. Not located on the survey, it is situated approximately 300mm from the boundary fence. Crown ingress into the lot of assessment is 1800mm at 4m. Limited assessment due to lack of access. <b>Proposed works;</b> See Section 7.1.3												
8	<i>Melaleuca pallidus</i> <sup>A</sup> Yellow Bottlebrush	5	0.15 <sup>c</sup>	3 x 3 <sup>c</sup>	M	C	N	A	A2 <sup>c</sup>	MEDIUM	2.0	1.5
<b>Assessment</b> This neighbouring tree presents as typical for the species. Not located on the survey, it is situated approximately 300mm from the boundary fence. Crown ingress into the lot of assessment is 1500mm at 4m. Limited assessment due to lack of access. <b>Proposed works;</b> See Section 7.1.3												
9	<i>Leptospermum petersonii</i> Lemon Scented Tea tree	5	0.22 <sup>BC</sup>	3 x 3 <sup>c</sup>	M	C	N	A	A2 <sup>c</sup>	MEDIUM	2.6	1.8
<b>Assessment</b> This neighbouring tree presents as typical for the species. Not located on the survey, it is situated approximately 300mm from the boundary fence. Crown ingress into the lot of assessment is 1800mm at 4m. Limited assessment due to lack of access. <b>Proposed works;</b> See Section 7.1.3												
10	<i>Leptospermum petersonii</i> Lemon Scented Tea tree	6	0.22 <sup>BC</sup>	3 x 3 <sup>c</sup>	M	C	Sym.	A	A2 <sup>c</sup>	MEDIUM	2.6	1.8
<b>Assessment</b> This neighbouring tree presents as typical for the species. Not located on the survey, it is situated approximately 350mm from the boundary fence. Crown ingress into the lot of assessment is 1700mm at 4m. Limited assessment due to lack of access. <b>Proposed works;</b> See Section 7.1.3												
11	<i>Syzygium paniculatum</i> Magenta Lilly Pilly	4	0.15	3 x 3	Y	D	Sym.	A	A2	LOW	2.0	1.5

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree has received excessive crown lift pruning- approximately 50% of the foliar mass has been removed. Multiple open wounds, including stub cuts are present on the mid- lower stem, epicormic growths are emerging. <b>Proposed works;</b> See Section 7.1.2												
12	<i>Syzygium wilsonii</i> Powderpuff Lilly Pilly	4	0.14 <sup>a</sup>	3 x 4	M	D	Sym.	A	A2	LOW	2.0	1.5
<b>Assessment</b> This tree has received crown lift pruning. Multiple open wounds, including stub cuts are present on the lower stem. <b>Proposed works;</b> See Section 7.1.2												
13	<i>Syzygium paniculatum</i> Magenta Lilly Pilly	9	0.39 0.11	9 x 9	M	D	Sym.	A	B1	MEDIUM	4.9	2.3
<b>Assessment</b> This tree has received crown lift pruning. Multiple open wounds, including stub cuts are present on the lower stem. Co-dominant at 1.4m, the union appears sound. <b>Proposed works;</b> See Section 7.1.3												

A. Incomplete identification of species due to insufficiently available plant material

B. Diameter taken below 1.4m due to low stem bifurcation

C. estimate due to the overgrown area and/or limited access

D. deciduous species, void of foliage at the time of assessment

E. Level 3 assessment required to determine the accurate rating

## 7.0 Site Assessment

The area of assessment comprises a rectangular shaped lot. The lot has a consistent mild gradient with a north-eastern aspect. The split level brick dwelling is located in the eastern portion of the lot, with a bias to the southern boundary. A section of the dwelling (northeastern corner) that appears to have been the original garage has been enclosed/ altered to create a livable space. A detached, clad studio is located centrally, on the southern boundary. An inground pool is situated immediately behind (west of) the dwelling; however, this is contained within retaining walls, suggesting limited excavation. The stenciled, concrete slab driveway services a carport located centrally on the northern boundary, and also a detached, brick double garage located in the northwestern corner. The concrete slab continues south at the rear of the residence and surrounds the pool area. A steel grate gives access to a drainage pit located within the concrete slab, immediately north of the pool.

The southwestern boundary has a fence of corrugated metal sheets installed in front of the sleeper retaining wall that has allowed the neighbouring residence and rear yard to be elevated well above (approximately 1400mm) the grade of the lot of assessment- this appears to have ensured no root ingress from the trees located on the northern boundary of this neighbouring lot. The western boundary is fence by a Besser block wall.

The deliberate plantings are located on the periphery of the open, lawned rear yard. The front yard has multiple small specimens that do not satisfy local councils' definition of a tree. The mature trees at the front of the lot, are council-owned assets.

The trees labeled as A and B that have been included in the survey drawing (Plan 1) however, excluded from this report because of the failure to conform to the description of a prescribed tree based on the Wollongong Councils Development Control Plan.

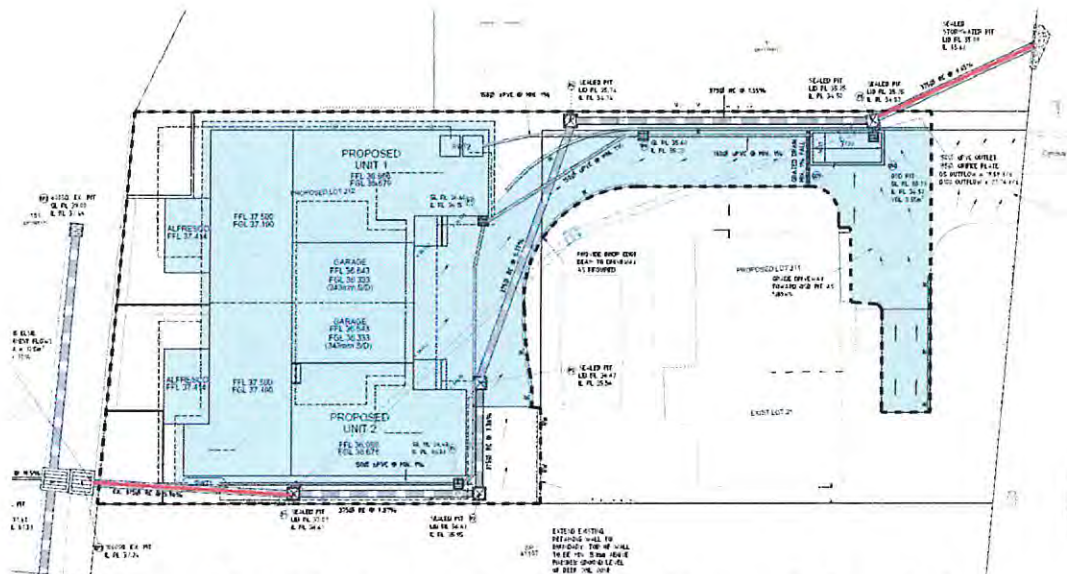
Tree A: trees located on the survey provided, however, were absent.

Tree B: trees less than 3m

## 7.1 Proposed development

The proposed development consists of a two-lot subdivision, and the construction of a residential duplex development, drive access, and drainage infrastructure. The calculations included in the following discussion have not considered subsurface utilities that have not been included in the design, or work methods related to construction (stockpiling, site sheds, scaffolding) unless otherwise specified. These may also increase the encroachment and impact on the opportunity for tree retention.

**Assumption 1; Stormwater design:** a stormwater easement extends through the lot and is proposed to be rerouted. The primary encroachment by the design consists of the UPVC pipe (375mm diameter) that extends from the southwestern corner of the lot to the northeastern corner, where it meets the street drainage. The encroachment will consist of the installation for this pipe, which has been assumed to be trenched, therefore presenting a potential root loss via severance of all roots that cross the route of this pipe. The extent of root loss will be dependent upon the depth of the excavation, which is assumed to be at least 700mm deep. The portion of lines that extend from the southeast corner and northern boundary to the pit on Kembla street is in the same route as the existing and has been assumed to be retained and is not replaced, see Figure 1.



**Figure 1; the portion of the existing stormwater pipe outlined in red is assumed to be retained.**

**Source:** Adapted from *Westlake Punnett*, Drawing C03, See Section 4.4.3

**Assumption 2:** The excavation required for the retaining walls will need to be further from the outside edge of the proposed wall to allow for construction of the wall, waterproofing and drainage, therefore, the actual cut has been assumed within this report to be up to 300mm from the line indicating the location of the retaining wall. All calculations for the encroachment of any zone of protection (TPZ, SRZ) have been based on this assumption.

**Assumption 3:** The existing crossover is of stenciled concrete slab construction, and caters for the root zone (zones of protection) for trees No. 3 and 4. The drive has not been referenced for replacement. Therefore it is assumed that the existing crossover is to be retained, and no further work will occur in this area.



This report discusses the impact of the proposed design on the trees. Thirteen (13) trees have been listed within this report based upon the vicinity of the proposed works. This has included street and neighbouring trees where any part of the zones of protection, Tree Protection Zone (TPZ), and Structural Root Zone (SRZ) to encroach into the lot. Recommendations based on the tree significance and condition, together with the impact on these trees regarding the development for this lot follow;

#### **7.1.1 Trees and zones of protection (TPZ/SRZ) outside of the proposed design**

##### Trees No. 2, 5 and 6

None of the proposed works conflict with the location of these trees or respective zones of protection. These trees can be retained without impact by the proposed design.

#### **7.1.2 Trees subject to a minor encroachment**

##### Trees No. 1, 3, 7-11 and 12

These trees are not directly located in the footprint of the proposed design, however, are subject to a *minor encroachment*. That is, the proportion (<10%) of encroachment provided by design will not adversely impact on the tree. These trees could be retained relative to the design.

#### **7.1.3 Trees subject to a major encroachment**

##### Tree No. 13

This tree is are not directly located in the footprint of the proposed design; however, it is located close and adjacent to the dwelling footprint and subject to a *major encroachment*, that is, in excess of 10% of the TPZ. The extent and type of encroachment for the tree are discussed and the relative implications.

Encroachment: 23%; based on sheet 3, issue J. The encroachment consists of excavation for the proposed alfresco area (seventeen percentage points) and also the proposed dwelling (six percentage points)<sup>7</sup>. This will present excessive root removal (TPZ and SRZ) that may not sustain the tree, however certainly instigate stability concerns. Further impact by the design occurs to the dripline where approximately 25% of the crown would require pruning to accommodate the design. The existing design will not accommodate this tree.

## **7.2 Sub-surface utilities**

No drawings have been provided for the proposed route of sub-surface utilities, other than stormwater. Any trenching, other than what has been allowed for

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<sup>7</sup> See Section 7.1; Assumption 2

should be avoided within the area of the TPZ's for any tree nominated for retention. Any proposed route shall be re-routed outside of the TPZ. Under boring may be required if a limitation for the route of a service is restricted to an area that falls within the TPZ from any tree. Any excavation in the area of a TPZ must be authorised and conditioned by the project arborist.

### 7.3 Protection measures

Tree protection measures will be required during the demolition and construction stage. However, the design of these will be pending the work methodology and final design. The project arborist shall be contracted after the completion/confirmation of design work for the instruction of the protection measures implementation, that is the Arboricultural Method Statement. Examples of the protection measures are contained in Appendix B.

#### 7.3.1 Conditions for compliance

The following conditions are required before any works proceed on site.

Site induction; All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work. This is required as part of the site induction process.

Project Arborist; A project arborist who conforms to the requirements of the AS 4970 is required to be nominated immediately after a *Notice of Determination* is issued, and they are to be provided with all related site documents.

### 7.4 Compliance Documentation

The following stages will require assessment and documentation (report, letter, certification) by the project arborist or person responsible for the specific work type, and the related documentation is to be issued to the principal certifying agent.

**7.4.1 Table 2; Assessment/Certification stages**

Stage	Work type	Document required
Pre-demolition	Installation of the protection measures, Section 7.3	Certificate*
During construction	Any <u>further works</u> required within the area of the TPZ, or decline related to the trees that have not been covered by this report.	Report Brief
During	Any crown modification including	Report Brief

construction	pruning or root disturbance.	
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**Construction** refers to the time between the initiation of demolition and until an occupation certificate is issued.

**\*Mandatory**

## 8.0 Protection Specification

The retention and protection of trees provide for the requirement of the Tree Protection Zone (TPZ) to conform to the conditions outlined below. These conditions provide the limitations of work permitted within the area of the Tree Protection Zone (TPZ) and must be adhered to unless otherwise stated.

1. Foundation/footing types should not be strip type, but utilise footing types that are sympathetic towards retaining root system that is, screw, pier, etc. Slab on the ground can be accommodated in some circumstances and will be nominated by the project arborist. The extent of encroachment will be dependent upon the tree species, soil type (texture and profile) and gradients.
2. Subsurface utilities can extend through the TPZ and Structural Root Zone (SRZ), however, are limited to the method of installation. That is under boring is permitted, however trenching is limited and depends on the proposed route within the TPZ. No trenching is permitted within the area of the TPZ unless stipulated by the project arborist.
3. Crown pruning can be accommodated, however, must conform to the AS 4373; *Pruning of Amenity Trees*, and not misshape the crown nor remove in excess of 10-15% of the existing crown, pending on the species, and vitality. The opportunity for, type and proportion of pruning will be required to be nominated by the project arborist.
4. Soil levels within the TPZ must remain the same. Any excavation within the TPZ must have been previously specified and allowed for by the project arborist:
  - a) So it does not alter the drainage to the tree.
  - b) Under specified circumstances,
    - o Added fill soil does not exceed 100mm in depth over the natural grade. Construction methodologies exist that can allow grade increases in excess of 100mm, via the use of an impervious cover, an approved permeable material or permanent aeration system or other approved methods.

- Excavation cannot exceed a depth of more than 50mm within the area of the TPZ, not including the SRZ. The grade within the SRZ cannot be reduced without the consent from a project arborist.
- 5. No form of material or structure, solid or liquid, is to be stored or disposed of within the TPZ.
- 6. No lighting of fires is permitted within the TPZ.
- 7. All drainage runoff, sediment, concrete, mortar slurry, paints, washings, toilet effluent, petroleum products, and any other toxic wastes must be prevented from entering the TPZ.
- 8. No activity that will cause excessive soil compaction is permitted within the TPZ. That is, machinery, excavators, etc. must refrain from entering the area of the TPZ unless measures have been taken, and with consultation with the project, arborist to protect the root zone.
- 9. No site sheds, amenities or similar site structures are permitted to be located or extend into the area of the TPZ unless the project arborist provides prior consent.
- 10. No form of construction work or related activity such as the mixing of concrete, cutting, grinding, generator storage or cleaning of tools is permitted within the TPZ.
- 11. No part of any tree may be used as an anchorage point, nor should any noticeboard, telephone cable, rope, guy, framework, etc. be attached to any part of a tree.
- 12. (a) All excavation work within the TPZ will utilise methods to preserve root systems intact and undamaged. Examples of methods permitted are by hand tools, hydraulic, or pneumatic air excavation technology.  
  
(b) Any root unearthed which is less than 50mm in diameter must be cleanly cut and dusted with a fungicide, and not allowed to dry out, with minimum exposure to the air as possible.  
  
(c) Any root unearthed which is greater than 50mm in diameter must be located regarding their directional spread and potential impact. A project arborist will be required to assess the situation and determine future action regarding retaining the tree in a healthy state.

Project Arborist: person nominated as responsible for the provision of the tree assessment, arborist report, consultation with stakeholders, and certification

for the development project. This person will be adequately experienced and qualified with a minimum of a level 5 (AQF); Diploma in Horticulture (Arboriculture)<sup>8</sup>.

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<sup>8</sup> Based upon the definition of a 'consulting arborist' from the AS 4970; Protection of trees on development sites; 2009, section 1.4.4, p 6.

## **9.0 Summary of tree impact by design**

Based on the design supplied, the following summary provides the impacts imposed on the trees included in this report.

### **9.1 Trees No. 1-12**

These trees are not adversely impacted by the design, that is, they conform to a minor encroachment or less and the nominated zones of protection (TPZ, SRZ) based on the requirements of the Protection Specification, Section 8.0. The proposed design does not adversely affect these trees.

### **9.2 Tree No. 13**

The proposed design will impact adversely on this tree and is unable to be retained based on the design.

### **9.3 Sub-surface utilities**

No drawings have been provided for the proposed route of sub-surface utilities other than stormwater. Any trenching, other than what has been allowed for should be avoided within the area of the TPZ's for any tree nominated for retention. Any proposed route shall be re-routed outside of the TPZ. Under boring may be required if a limitation for the route of a service is restricted to an area that falls within the TPZ from any tree. Any excavation in the area of a TPZ must be authorised and conditioned by the project arborist.

### **9.4 Protection measures**

Protection measures (outlined in Section 7.3 and 7.4) are required to be implemented for the trees nominated for retention (referenced in Section 9.1) and installed before initiation of site works (including demolition/excavation) and retained until the landscaping works are required unless otherwise specified.

All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work.

A project arborist is required to be nominated, and the stages and related certification or similar documentation is to be issued to the principal certifying agent.

**The opinions expressed in this report by the author have been provided within the capacity of a Consulting Arborist. Any further explanation or details can be provided by contacting the author.**

Assessed and Prepared by Geoff Beisler

Consulting Arborist

Level 5 Arborist

ISA Tree Risk Assessment Qualification

Prepared and checked by Warwick Varley

Consulting Arborist; Principal

Level 5 and 8; Arborist

ISA Tree Risk Assessment Qualification

IACA and ISA Member



## 10.0 Appendix A- Terminology Defined

### Height

Is a measure of the vertical distance from the average ground level around the root crown to the top surface of the crown, and on palms - to the apical growth point.

### DBH

Diameter at Breast Height – being the stem diameter in meters, measured at 1.4m from ground level, including the thickness of the bark.; Mult. refers to multiple stems, that is in excess of 4 stems.

### Crown Spread

A two-dimension linear measurement (in metres) of the crown plan. The first figure is the north-south span, the second being the east-west measurement.

### Age

Is the estimate of the specimen's age based upon the expected lifespan of the species. This is divided into three stages.

Young (Y)	Trees less than 20% of life expectancy.
Mature (M)	Trees aged between 20% to 80% life expectancy.
Over-mature (O)	Trees aged over 80% of life expectancy with probable symptoms of senescence.

### Crown Aspect

In relation to the root crown, this refers to the aspect the majority of the crown resides in. This will be either termed Symmetrical (Sym.) where the centre of the crown resides over the root crown or the cardinal direction the centre of the crown is biased towards, being either North (N), South (S), East (E) or West (W).

### Vitality Rating

Is a rating of the health of the tree, irrespective and independent of the structural integrity, and defined by the 'ability for a tree to sustain its life processes' ((Draper, Richards, 2009). This is divided between three variables, and based on the assessment of symptoms including, but not limited to; leaf size, colour, crown density, woundwood development, adaptive growth formation, and epicormic growth.

A: Normal vitality, typical for the species

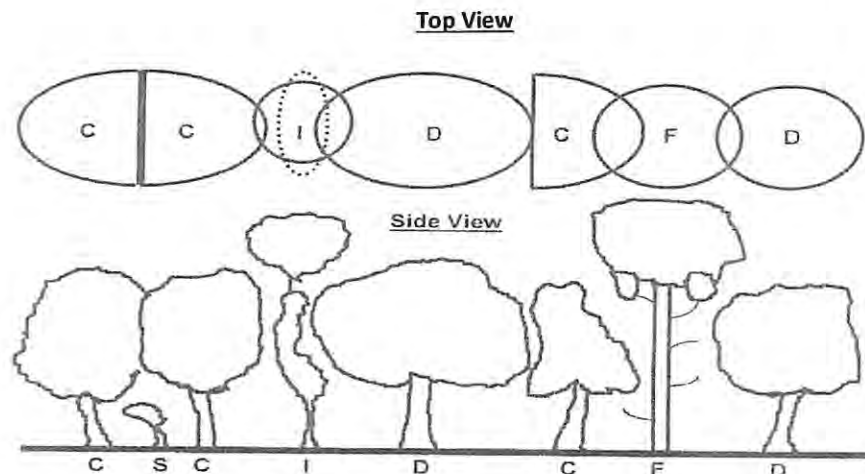
B: Below average vitality, possibly temporary loss of health, partial symptoms.

C: Poor vitality; obvious decline, potentially irreversible

### Crown Class

Is the differing crown habits as influenced by the external variables within the surrounding environment. They are:

<b>D</b> – <i>Dominant</i>	Crown is receiving uninterrupted light from above and sides, also known as emergent.
<b>C</b> – <i>Codominant</i>	Crown is receiving light from above and one side of the crown.
<b>I</b> – <i>Intermediate</i>	Crown is receiving light from above but not the sides of the crown.
<b>S</b> – <i>Suppressed</i>	Crown has been shadowed by the surrounding elements and receives no light from above or sides.
<b>F</b> – <i>Forest</i>	Characterised by an erect, straight stem (usually excurrent) with little stem taper and virtually no branching over the majority of the stem except for the top of the tree which has a small concentrated branch structure making up the crown.



D C, I & S, and side view, after (Matheny, N. & Clark, J. R. 1998, Trees Development, Published by International Society of Arboriculture, P.O. Box 3129, Champaign IL 61826-3129 USA, p.20, adapted from the Hazard Tree Assessment Program, Recreation and Park Department, City of San Francisco, California).

#### Levels of assessment

**Level 1: Limited visual:** a visual tree assessment to manage large populations of trees within a limited period and in order to identify obvious faults which would be considered imminent.

**Level 2: Basic assessment:** a standard performed assessment providing for a detailed visual assessment including all parts of the tree and surrounding environment and via the use of simple tools.

**Level 3: Advanced assessment:** specific type assessments conducted by either arborist who specialise with specific areas of assessment or via the use of specialised equipment. For example, aerial assessment by use of an EWP or rope/harness, or decay detection equipment.

#### TPZ; Tree Protection Zone

Is an area of protection required for maintaining the trees vitality and long-term viability. Measured in meters as a radius from the trees centre. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

The size of the Tree Protection Zone (TPZ) has been calculated from the *Australian Standard, 4970; 2009 – Protection of Trees on Development Sites*

The TPZ does not provide the limit of root extension, however, offers an area of the root zone that requires predominate protection from development works. The allocated TPZ can be modified by some circumstances; however will require compensation equivalent to the area loss, elsewhere and adjacent to the TPZ.

#### SRZ; Structural Root Zone

Is the area around the tree containing the woody roots necessary for stability. Measured in meters as a radius from the trees centre. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

#### Protection Measures

These are required for the protection of trees during demolition/construction activities.

Protective barriers are required to be installed before the initiation of demolition and/or construction and are to be maintained up to the time of landscaping. Samples of the recommended protection measures are illustrated in Appendix B.

#### All other definitions are referenced from;

Draper D.B., Richards P.A., 2009, Dictionary for Managing Trees in Urban Environments  
CSIRO Pub., Australia

**Significance Rating, Significance of a Tree Assessment Rating System (S.T.A.R.S), IACA, 2010<sup>9</sup>**

**Tree Significance – Assessment Criteria**

**1. High Significance in landscape**

- The tree is in good condition and good vitality;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ – tree is appropriate to the site conditions.

**2. Medium Significance in landscape**

- The tree is in fair-good condition and good or low vitality;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

**3. Low Significance in landscape**

- The tree is in fair-poor condition and good or low vitality;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences,

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<sup>9</sup> IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, [www.iaca.org.au](http://www.iaca.org.au)

unlikely to reach dimensions typical for the taxa in situ – tree is inappropriate to the site conditions,

- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
  - The tree has a wound or defect that has potential to become structurally unsound.
- Environmental Pest / Noxious Weed Species
- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
  - The tree is a declared noxious weed by legislation.


Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short-term.

**The tree is to have a minimum of three (3) criteria in a category to be classified in that group.**

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g.

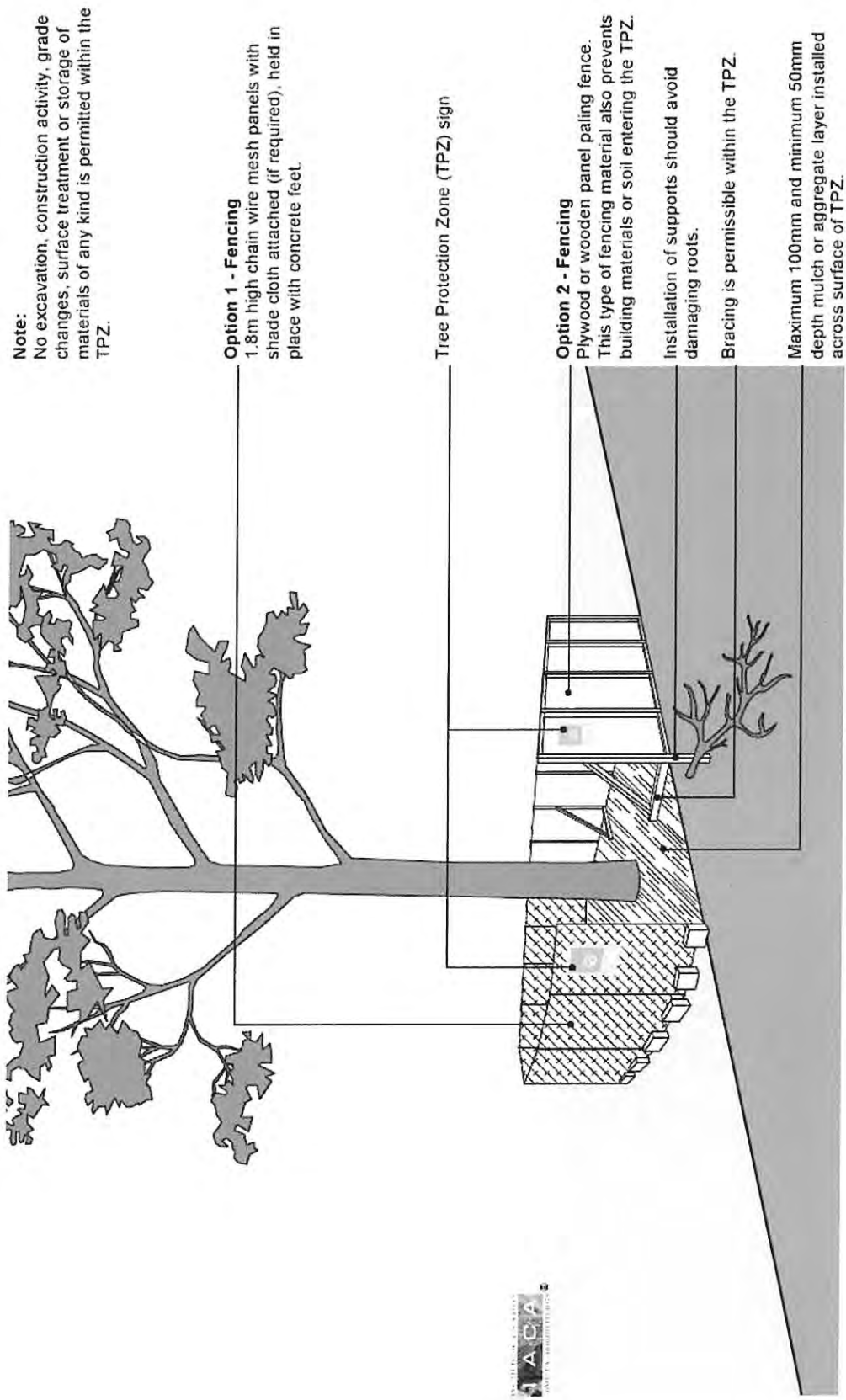
**Table 3; Tree Retention Value – Priority Matrix.**

		Significance				
		1. High Significance in Landscape	2. Medium Significance in Landscape	3. Low Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long >40 years					
	2. Medium 15-40 Years					
	3. Short <1-15 Years					
	Dead					
<b>Legend for Matrix Assessment</b> 						
		<b>Priority for Retention (High)</b> - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.				
		<b>Consider for Retention (Medium)</b> - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.				
		<b>Consider for Removal (Low)</b> - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.				
		<b>Priority for Removal</b> - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.				

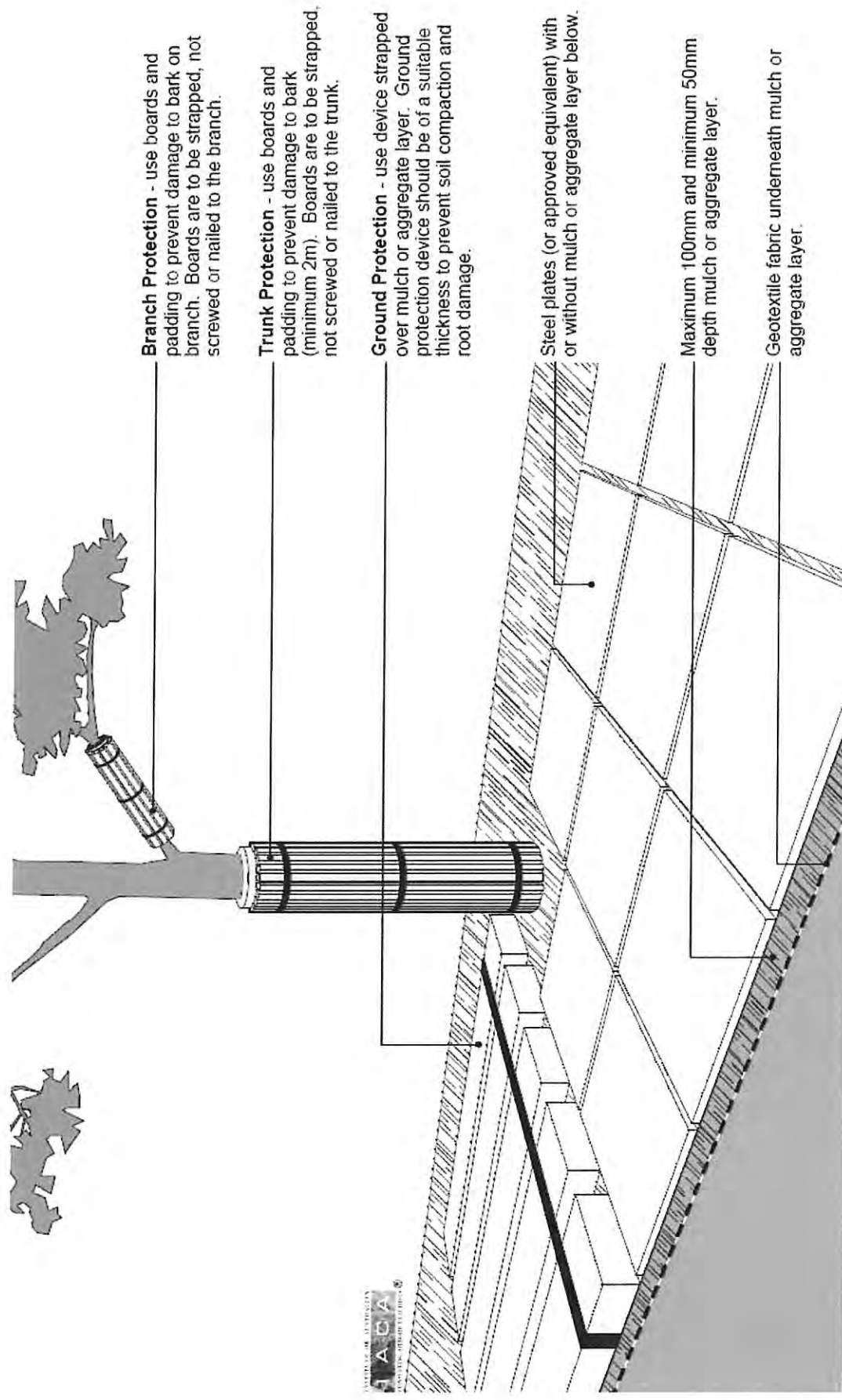
**Safe Useful Life Expectancy – S.U.L.E (Barell 1995)**

	<b>1. Long</b>	<b>2. Medium</b>	<b>3. Short</b>	<b>4. Removal</b>	<b>5. Moved or Replaced</b>
	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 15 – 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 5 – 15 years with an acceptable level of risk.	Trees that should be removed within the next 5 years.	Trees which can be reliably moved or replaced.
<b>A</b>	Structurally sound trees located in positions that can accommodate future growth.	Trees that may only live between 15 and 40 years.	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions.	Small trees less than 5m in height.
<b>B</b>	Trees that could be made suitable for retention in the long term by remedial tree care.	Trees that may live for more than 40 years but would be removed for safety or nuisance reasons.	Trees that may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees through instability on recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in heights
<b>C</b>	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting.	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Damaged trees through structural defects including cavities, decay, included bark, wounds or poor form.	Trees that have been pruned to artificially control growth.
<b>D</b>		Trees that could be made suitable for retention in the medium term by remedial tree care.	Trees that require substantial remedial tree care and are only suitable for retention in the short term.	Damaged trees that are clearly not safe to retain.	
<b>E</b>				Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings.	
<b>F</b>				Trees that are damaging or may cause damage to existing structures within 5 years.	
<b>G</b>				Trees that will become dangerous after removal of other trees for reasons given in (A) to (F).	

## Appendix B- Protection measures; Protective fence



## Stem and Ground protection





WESTLAKE PUNNETT & ASSOCIATES PTY LTD  
CIVIL & STRUCTURAL ENGINEERS

WOLLONGONG  
4211 0393

NOWRA  
4423 5533

ULLADULLA  
4455 4397

Email: [office@westlakepunnett.com.au](mailto:office@westlakepunnett.com.au)  
PO Box 1573 NOWRA 2541

Civil and Structural Engineers

## FLOOD REPORT FOR 8A KEMBLA STREET, BALGOWNIE

CLIENT: SUSTAINABLE BY DESIGN

JOB REF: 19258.02

ISSUED DATE: 25<sup>TH</sup> OCTOBER 2019

SIGNED:



P.M. LITTLE  
MIEAust  
BEng (Hons) (Civil/Mining)

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## 1.0 Executive Summary

Westlake Punnett & Associates Pty Ltd have been engaged to undertake a detailed investigation of existing information and provide a flood report in order to facilitate the development application for the proposed dual occupancy and subdivision at 8A Kembla Street, Balgownie.

A detailed review of existing information revealed that the proposed development is not affected by floodwater and as such is should not be subject to flood development controls outlined in the Wollongong City Council DCP 2009 due to the diversion of the overflow from a large OSD basin at 7 Elsie Court, Balgownie. Existing information paired with a site investigation by Westlake Punnett & Associates Pty Ltd provides adequate and sufficient evidence to demonstrate that the overflow of the OSD basin during a 1% AEP and PMF flood event will be diverted away from the subject lot and down an existing carriageway to Elsie Court.

This report demonstrates that the subject lot will only receive overland flows from the directly up-catchment lot no. 5 Elsie Court, Balgownie following a blockage of its OSD system which has been designed for a 1% AEP overland flow event. The proposed development plans and concept stormwater management plan have been provided at appendix A and appendix B respectively.

## 2.0 Introduction

8A Kembla Street, Balgownie is currently classified under Wollongong City Councils database as 'unclassified flood risk'. As such, Westlake Punnett & Associates Pty Ltd have been engaged to undertake an investigation regarding the flood risk precinct, potential flood hazards and make comment with regard to the flood affectation of the proposed development at 8A Kembla Street, Balgownie as a supplement to the subject development application.

### 3.0 Existing Information

Existing information reviewed by Westlake Punnett & Associates Pty Ltd during its investigation are listed below. These items were obtained through GIPA requests of previous development applications through Wollongong City Council for 5 Elsie Court, Balgownie.

- Drawings 02064/C1-C9 by Sherson Lautier Consultancy dated 11<sup>th</sup> November 2002 (refer to appendix C).
- Wollongong City Council Development & Construction Certificate Application DA-811/02.
- Wollongong City Council Development Consent DA-2013-1541 dated 5<sup>th</sup> March 2014.
- Wollongong City Council Development Consent DA-2013/1541/A dated 21<sup>st</sup> October 2016 (refer to appendix D).
- S79C Assessment Report by Wollongong City Council for DA-2013/1541 dated 19<sup>th</sup> December 2013 (refer to appendix E).

Additionally, Westlake Punnett & Associates Pty Ltd have inspected the existing OSD Basin at 7 Elsie Court, Balgownie as well as existing retaining walls and levels along the existing carriageway to 5 and 7 Elsie Court, Balgownie in order to confirm that existing on-site conditions reflected those as depicted on the abovementioned plans and documentation. During this site investigation it was found that the retaining walls, OSD Basin and carriageway were in-fact constructed in a manner reflecting the abovementioned plans.

## 4.0 Discussion

Through our review of existing documentation and site investigations, it is apparent that the site at 8A Kembla Street, Balgownie is not flood-prone due to the diversion of overland flows from the up-catchment lots via a large OSD basin at 7 Elsie Court, Balgownie. The implementation and construction of this overflow path was constructed as part of a development application at 5 and 5A Elsie Court, Balgownie.

It is further noted that the use of this overflow path for diverting floodwaters was considered in DA-2013/1541 with the S79C Assessment Report noting that the presence of the retaining walls satisfactorily addressed flooding concerns to the lot directly adjacent and up-catchment from the proposed development. Considering this, the proposed development is only therefore subject to overland flows from the directly up-catchment lots of 5 and 5A Elsie Court, Balgownie. Overland flows from these up-catchment properties are included as a part of the concept stormwater management plan provided at appendix B.

## 5.0 Recommendations

Following our investigation, it is opined that the subject lot is not affected by floodwaters. As such, the following general recommendations are made:

- Westlake Punnett & Associates Pty Ltd recommend that all new stormwater pits be positioned such that at least 150mm freeboard exists between the proposed grate level and the adjacent building flood level.
- We recommend that the site be categorised under Wollongong City Councils DCP 2009 as non-flood affected and that it not be subjected to the controls relevant to flood prone developments.

## ATTACHMENT 6 – WDCP 2009 COMPLIANCE TABLES

### CHAPTER B1 – RESIDENTIAL DEVELOPMENT

#### 4.0 General Residential controls

Controls/objectives	Comment	Compliance
<p><b>4.1 Maximum Number of Storeys</b></p> <p><i>Dwelling houses on battleaxe allotments are restricted to 1 storey unless it can be demonstrated that the proposed development achieves the objectives in Clause 4.1.1 and complies with the maximum height maps in the LEP.</i></p> <p><i>Habitable roof space may provide additional habitable area only when the height of the building does not exceed the maximum building heights specified in the relevant LEP.</i></p> <p><i>In R2 Low Density Residential zones, where development occurs within the 8m rear setback the development is limited to single storey, so as to not adversely impact on the amenity of the adjoining property.</i></p>	<p><u>Proposed Dual Occupancy</u></p> <p>2 storey dual occupancy proposed on a battleaxe lot. <b>See discussion of variation at Chapter A1.</b></p> <p>Maximum height (6.217m) below 9m maximum height that is required by WLEP 2009.</p> <p>First floor is setback 8.968m from rear boundary.</p> <p><u>Existing Dwelling</u></p> <p>NA- No Change</p>	VARIATION
<p><b>4.2 Front Setbacks</b></p>	<p>No change to existing front setback</p>	NA
<p><b>4.3 Side and Rear Setbacks</b></p> <p>Walls: 900mm</p> <p>Walls &gt;7m: 3m</p>	<p><u>Proposed Dual Occupancy</u></p> <p>Side Setbacks: 953mm – 1.5m</p> <p><u>Existing Dwelling</u></p> <p>NA- No Change</p>	Y
<p><b>4.4 Site coverage</b></p> <p><i>50% of the area of the lot, if the lot has an area of at least 450m<sup>2</sup> but less than 900m<sup>2</sup>.</i></p>	<p><b>Lot 211:</b> 108.98 / 499.66 = 21.81%</p> <p><b>Lot 212:</b> 225.57 / 476.55 = 47.3%</p>	Y
<p><b>4.5 Landscaped Area</b></p> <p><i>Lot area less than 600m<sup>2</sup>: 20% landscaped area</i></p> <p><i>At least 50% of the landscaped area must be located behind the building line.</i></p> <p><i>Dual occupancy development requires a minimum of 1.5 metre wide landscape strip within the front setback</i></p> <p><i>“Landscaped Area Means a part of a site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area.”</i></p>	<p><u>Proposed Dual Occupancy (Lot 212):</u></p> <p>106.8 / 476.5 = 22%</p> <p>72% behind building line</p> <p><u>Existing dwelling (Lot 211):</u></p> <p>100/ 499.56 = 20% (excl. permeable parking)</p> <p><b>27% behind building line.</b></p> <p><b>See discussion of variation at Chapter A1.</b></p>	VARIATION

<p><u>4.6 Private Open Space</u></p>	<p><u>Proposed Dual Occupancy</u></p> <p>24m<sup>2</sup> of POS has been provided with compliant dimensions, Contains single accessible from the living area.</p> <p><u>Existing Dwelling</u></p> <p>24m<sup>2</sup> of POS has been provided with compliant dimensions, accessible from the living area.</p>	<p>Y</p>
<p><u>4.7 Solar Access</u></p> <p><i>Windows to living rooms of adjoining dwellings must receive at least 3 hours continuous sunlight, between hours of 9.00am and 3.00pm on 21 June.</i></p> <p><i>At least 50% of the private open areas of adjoining residential properties must receive at least 3 hours of continuous sunlight, between hours of 9.00am and 3.00pm on June 21.</i></p> <p><i>Shadow diagrams are required for 9.00am, 12:00pm and 3.00pm for the 21 June winter solstice period for two storey dwellings.</i></p> <p><i>Dwellings should be designed to maximise natural sunlight to main living areas and the private open space.</i></p>	<p><u>Proposed Dual Occupancy</u></p> <p>Living areas and POS appear to receive adequate solar access.</p> <p>POS of Dwelling 2 appears to only receive solar access in the afternoon.</p> <p><u>Existing Dwelling</u></p> <p>Will receive adequate solar access.</p> <p><u>Adjoining Dwellings</u></p> <p>Shadow diagrams for 9am, 12pm and 3pm on 21 June have been provided:</p> <p><b>10 Kembla Street (South):</b></p> <p>The ground floor of these units contains kitchen, dining and lounge rooms. POS located in form of verandahs on both floors and designated outdoor courtyard areas.</p> <p>It is noted there is existing vegetation that may result in overshadowing of these areas.</p> <p>The northern courtyards of Units 2, 3 and 4 of 10 Kembla Street will be subject to approximate overshadowing as follows.</p> <p>9am:</p> <ul style="list-style-type: none"> <li>Unit 4: ~50%</li> <li>Unit 3: ~20%</li> <li>Unit 2: NA</li> </ul> <p>12pm:</p> <ul style="list-style-type: none"> <li>Unit 4: ~20%</li> <li>Unit 3: ~10%</li> <li>Unit 2: NA</li> </ul> <p>3pm:</p> <ul style="list-style-type: none"> <li>Unit 4: ~40%</li> <li>Unit 3: ~60%</li> </ul>	

	<ul style="list-style-type: none"> <li>Unit 2: ~5%</li> </ul> <p>A minimum of 50% of all affected POS and living areas will receive at least 3 hours sunlight.</p> <p><b>5 Elsie Court (west):</b></p> <p>Contains 2 storey dwelling with ground floor and first floor POS area:</p> <p>Approximate overshadowing at 9am:</p> <ul style="list-style-type: none"> <li>Minor overshadowing of ground floor POS.</li> </ul> <p>No further overshadowing throughout day.</p> <p>All affected POS and living areas will receive at least 3 hours sunlight.</p>	
<p><u>4.8 Building Character and Form</u></p> <p><i>The design, height and siting of a new development must respond to its site context taking into account both natural and built form features of that locality. The design of the development must have particular regard to the topography of the site to minimise the extent of cut and fill associated with dwelling construction.</i></p>	<p><u>Proposed Dual Occupancy</u></p> <p>No significant cut or fill is proposed.</p> <p>The topography of the site and surrounds results in the dual occupancy sitting at a lower level than all surrounding buildings. The ridgeline of the development will be at a comparable height or below that of surrounding buildings.</p> <p>Whilst the building will be visible from surrounding properties, it will not dominate the skyline or compromise significant views, thereby maintaining the visual amenity of the area.</p> <p>Design &amp; materials are acceptable and building is sufficiently articulated.</p> <p><u>Existing Dwelling</u></p> <p>Conversion of garage back to true form will improve streetscape presentation.</p>	Y
<p><u>4.9 Fences</u></p>	<p>A 1.8m Colourbond fence is proposed to separate the proposed lot 211 and 212.</p> <p>An additional 600mm lattice (total height 2.4m), is proposed adjacent (west) to the pool area, this is acceptable.</p> <p>Additional boundary fencing is not proposed. May be undertaken at a later date as exempt development or as a condition of consent, as required.</p>	Y

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<p><u>4.10 Car parking and Access</u></p>	<p><u>Proposed Dual Occupancy</u></p> <p>Dwellings are under 125m<sup>2</sup></p> <p>1 x space proposed / required.</p> <p>Garage setback and width complies.</p> <p>Driveway crossover width and setback complies.</p> <p>Council's Development Engineer has recommended that a right of carriageway over the front public road frontage lot to enable access is an acceptable outcome. No adverse impact is anticipated.</p> <p><u>Existing Dwelling:</u></p> <p>Dwelling under 125m<sup>2</sup></p> <p>1 space required</p> <p>2 spaces proposed.</p> <p>See further assessment under Chapter E3.</p>	Y
<p>(a) 1 space per dwelling with a gross floor area of less than 125m<sup>2</sup></p> <p>(b) 2 spaces per dwelling with a gross floor area of 125m<sup>2</sup> or greater</p> <p>11. Dual Occupancy - Access for a rear dwelling must be provided by a dedicated access corridor attached to the same ownership of the rear property. A right of carriageway over the front public road frontage lot in favour of the rear lot will generally not be supported, except where, in the opinion of Council, this access arrangement would provide a more functional arrangement and not pose any adverse impact upon the amenity or streetscape character of the locality.</p>		
<p><u>4.11 Storage Facilities</u></p>	<p><u>Proposed Dual Occupancy</u></p> <p>Under stair storage and linen cupboard provided.</p> <p>This is acceptable.</p> <p><u>Existing Dwelling:</u></p> <p>Oversized single garage provided.</p> <p>This is acceptable.</p>	Y
<p>Three or more bedrooms 10m<sup>3</sup> / 5m<sup>2</sup></p>		
<p><u>4.12 Site Facilities</u></p>	<p>Mailbox may be provided in suitable area, to be subject of condition of consent.</p> <p>Clothes lines provided in location with suitable solar access</p>	Y
<p><u>4.13 Fire Brigade Servicing</u></p>	<p>No details provided, to be subject of condition of consent.</p>	Condition
<p><u>4.14 Services</u></p>	<p>No details provided, to be subject of condition of consent.</p>	Condition
<p><u>4.15 Development near the coastline</u></p>	NA	NA

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<u>4.16 View sharing</u>	No significant views are identified for this site.	NA
<u>4.17. Retaining walls</u>	600mm cut and 500mm height wall in north west section of site to provide level courtyard, in addition to other minor <900mm walls.	Y
<u>4.18 Swimming pools and spas</u>	<u>Proposed Dual Occupancy</u> NA <u>Existing Dwelling</u> Existing swimming pool	NA
<u>4.19 Development near railway corridors and major roads</u>	NA	NA
<u>4.20 Additional controls for semi-detached dwellings-alterations and additions</u>	NA	NA
<u>4.21 Additional controls for Dual Occupancies minimum site width</u> <i>Minimum 15m site width</i>	Site width 21.03m	Yes
<u>4.22 Additional controls for Dual Occupancies – building character and form</u>	NA	NA
<u>4.23 Additional Controls for Dual Occupancy's – Deep Soil Zones</u> <i>Minimum 50% of landscaped area must be DSZ.</i> <i>May be located in any position on the site subject to area having minimum dimension 3m.</i> <i>Must be located outside minimum POS</i> <i>Siting of DSZ to be determined following site and context analysis to determine whether DSZ should be located:</i> <ul style="list-style-type: none"> <li>- at rear of the site to allow for separation from adjacent dwellings and to provide a corridor of vegetation, or</li> <li>- elsewhere within site to allow retention of significant trees and attain maximum access to sunlight</li> </ul> <i>No structures, basement carports, driveways, hard paving, decks, balconies or drying areas are permitted in DSZ</i> <i>DSZ shall be densely planted with trees and shrubs.</i>	Lot 212 – Dual Occupancy 60 DSZ / 106.8 = 56%. DSZ satisfies dimension and location requirements. Council's Landscape Architect has reviewed landscape concept plan and found it satisfactory subject to conditions.	Y

## CHAPTER B2 – RESIDENTIAL SUBDIVISION

Controls/objectives	Complete	Compliance
<u>5 Topography, landform conservation, cut and fill</u>	Topography and landform of the site is suitable for subdivision.  No significant cut and fill required.	Y
<u>6 Subdivision design</u>	Subdivision design is acceptable.	Y
<u>6.1 Lot Layout - Aspect and solar access</u>	Lots have east west orientation.  Lots are of adequate size and width to permit adequate solar access.	Y
<u>6.2 Lot Size</u>	<p><i>The minimum subdivision allotment size requirement for a particular parcel of land shall be in accordance with the provisions of Wollongong LEP 2009 and the accompany Lot Size Map, relevant to the land.</i></p> <p><i>Regular shaped battle axe allotments within residential zones shall have a minimum allotment size of 550m<sup>2</sup>, excluding the battle axe access handle.</i></p>	VARIATION
<u>6.3 Lot Width and Depth</u>	<p>Lot shapes are regular, and sizes exceed that which is required under clause 4.1 of the WLEP 2009.</p> <p><b>Lot 211-</b> 499.66m<sup>2</sup></p> <p><b>Lot 212:</b> 478.55 (excl. lot handle)</p> <p>This technical variation to required battle-axe lot size has been satisfied by the proposed dual occupancy development. The development demonstrates the lot can be affectively developed with no variation to setbacks, site coverage or landscaped area.</p> <p>Council's Development Engineer has assessed the proposal and found the subdivision design to be acceptable.</p>	VARIATION
<p><i>Lots with a NW, W, SW, S, SE or E alignment should be 15 metres wide at the front building alignment.</i></p> <p><i>The minimum depth for a residential allotment should be at least 25 metres.</i></p>	<p>Lot shapes are regular, and sizes exceed that which is required under clause 4.1 of the WLEP 2009.</p> <p><b>Lot 211:</b> 20.027m / 19.95m (W) x 24.201m / 25.899m (D)</p> <p><b>Lot 212:</b> 19.95m / 21.035m (W) x 23.679 x 21.901m (D)</p> <p>This technical variation to required lot depth has been satisfied by the proposed dual occupancy development. The development demonstrates the lot can be</p>	VARIATION

	<p>affectively developed with no variation to setbacks, site coverage or landscaped area.</p> <p>It is also noted lot width exceeds that which is required.</p> <p>Council's Development Engineer has assessed the proposal and found the subdivision design to be acceptable</p>	
<u>6.4 Battle-axe Lots</u>	<p>A single battleaxe lot (lot 212) is proposed.</p> <p>Lot 212 satisfies lot size and dimension requirements.</p> <p>1m wide access handle/corridor provided along northern boundary.</p> <p>3m wide driveway pavement to be provided.</p> <p>Right of carriage way and easement for services to be provided across lot 211 to benefit lot 212</p> <p>1m wide landscape strip to be provided along northern boundary.</p>	Y
<u>6.5 Building envelopes</u>	<p>NA – Requirement satisfied by proposed development.</p>	NA
<u>Remaining Controls</u>	<p>NA – Related to larger subdivisions</p>	

## Attachment 7 - DRAFT CONDITIONS FOR: RD-2019/1268/A

### Approved Plans and Specifications

- 1 The development shall be implemented substantially in accordance with the details and specifications set out on:

Site Demolition Plan sheet 02/17-0 dated 2 November 2020 prepared by Sustainable by Design

Site Plan sheet 03/17-0 dated 2 November 2020 prepared by Sustainable by Design

Ground Floor Plan sheet 04/17-0 dated 2 November 2020 prepared by Sustainable by Design

Habitable Roof Space Plan sheet 05/17-0 dated 2 November 2020 prepared by Sustainable by Design

Elevations Plan sheet 07/17-0 dated 2 November 2020 prepared by Sustainable by Design

Elevations Plan sheet 08/17-0 dated 2 November 2020 prepared by Sustainable by Design

Sections Plan sheet 09/17-0 dated 2 November 2020 prepared by Sustainable by Design

Sections Plan - Driveway sheet 10/17-0 dated 2 November 2020 prepared by Sustainable by Design

Proposed Lot 211 - Existing Residence Gross Floor Area Plan 16/17-0 dated 2 November 2020 prepared by Sustainable by Design

Concept Subdivision Plan sheet 17/17-0 dated 2 November 2020 prepared by Sustainable by Design

Landscape Design Plan page 1-B dated 13 August 2020 prepared by Mark Spence Environmental & Landscape Services

and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

### 2 Phasing of the Development

The design and construction of the development shall be phased in the following order, with each phase wholly completed prior to commencement of the next.

Phase 1: Two (2) lot Torrens title subdivision, demolition of outbuildings, piped natural watercourse diversion works and alterations to existing dwelling.

Phase 2: Dual occupancy and Strata title subdivision

<i>Conditions applicable to Phase 1 (Two (2) lot Torrens title subdivision, demolition of outbuildings, piped natural watercourse diversion works and alterations to existing dwelling)</i>
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### General Matters

#### 3 Building Work - Compliance with the Building Code of Australia

All building work must be carried out in compliance with the provisions of the Building Code of Australia.

#### 4 Construction Certificate

A Construction Certificate must be obtained from Council or a Registered Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-147 of the Environmental Planning and Assessment Regulation 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

**Note:** The Certifier must cause notice of its determination to be given to the consent authority, and to the council, by forwarding to it, within two (2) days after the date of the determination, the plans and documentation referred to in clause 142 (2) of the Environmental Planning and Assessment Regulation 2000.

5 **Occupation Certificate**

An Occupation Certificate must be issued by the Principal Certifier prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifier must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

**Prior to the Issue of the Construction Certificate**

- 6 The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

7 **Structures Adjacent to Driveway**

Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS2890.1 (figure 3.2 and 3.3) to provide for adequate pedestrian and vehicle sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls, dense planting etc. This requirement shall be reflected on the Construction Certificate plans.

- 8 The edge of the driveway must be provided with a hob or dish drain to prevent surface water flows from entering the adjoining property. This requirement shall be reflected on the Construction Certificate plans, prior to the release of the Construction Certificate.

9 **Water/Wastewater Entering Road Reserve**

Provision shall be made for a minimum 200mm wide grated box drain along the boundary of the property at the vehicular crossing/s to prevent surface water entering the road reserve. This requirement shall be reflected on the Construction Certificate plans.

10 **Engineering Plans and Specifications - Retaining Wall Structures Greater than One (1) Metre**

The submission of engineering plans and supporting documentation of all proposed retaining walls greater than one (1) metre to the Principal Certifier for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

- a A plan of the wall showing location and proximity to property boundaries;
- b An elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
- c Details of fencing or handrails to be erected on top of the wall;
- d Sections of the wall showing wall and footing design, property boundaries, subsoil drainage and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall, subsoil drainage and footing structure must be contained wholly within the subject property;
- e The proposed method of subsurface and surface drainage, including water disposal. This is to include subsoil drainage connections to an inter-allotment drainage line or junction pit that discharges to the appropriate receiving system;
- f The assumed loading used by the engineer for the wall design.
- g Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

11 **Stormwater Drainage Design**

A detailed drainage design for the development must be submitted to and approved by the Principal Certifier prior to the release of the Construction Certificate. The detailed drainage design must satisfy the following requirements:

- a Be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, Subdivision Policy, conditions listed under this consent, and generally in accordance with the concept plan/s lodged for development approval, prepared by Westlake Punnett Civil and Structural Engineers, Reference No. 19258, dated 25 October 2019.
- b Include details of the method of stormwater disposal. Stormwater from the development must be piped to the piped natural watercourse.
- c Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties. The plan must indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines.
- d Overflow paths shall be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land, as well as from any detention storage on the land. Blocked pipe situations with 1 in 100 year ARI events shall be incorporated in the design. Overflow paths shall also be provided in low points and depressions. Each overflow path shall be designed to ensure no entry of surface water flows into any building and no concentration of surface water flows onto any adjoining property. Details of each overflow path shall be shown on the detailed drainage design.

## 12 **On-Site Stormwater Detention (OSD) Design**

The developer must provide OSD storage for stormwater runoff from the development. The design and details of the OSD system must be provided in conjunction with the detailed drainage design and approved by the Principal Certifier prior to the release of the Construction Certificate. The OSD design and details must satisfy the following requirements:

- a Must be prepared by a suitable qualified engineer in accordance with Chapter E14 of the Wollongong DCP 2009.
- b Must include details of the Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site in accordance with Section 10.2.4 of Chapter E14 of the Wollongong DCP2009.
- c The OSD facility must be designed to withstand the maximum loadings occurring from any combination of traffic (with consideration to residential and heavy vehicles), hydrostatic, earth, and buoyancy forces. Details must be provided demonstrating these requirements have been achieved.
- d The OSD facility shall incorporate a minimum 900mm x 900mm square lockable grate for access and maintenance purposes, provision for safety, debris control screen, and a suitably graded invert to the outlet to prevent ponding.
- e Must include discharge control calculations (i.e. orifice/weir calculations) generally in accordance with Section 10.2.6 and 10.4.4 of Chapter E14 of the Wollongong DCP2009.
- f Details of the orifice plate including diameter of orifice and method of fixing shall be provided.
- g Must include details of a corrosion resistant identification plaque for location on or close to the OSD facility. The plaque shall include the following information and shall be installed prior to the issue of the subdivision certificate:
  - The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.
  - Identification number RD-2019/1268/A.
  - Any specialist maintenance requirements.
- h Must include a maintenance schedule for the OSD system, generally in accordance with Chapter E14 of the Wollongong DCP 2009.

## 13 **Flows from Adjoining Properties**

Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing

upslope adjacent ground levels. The above requirements must be clearly shown on construction certificate plans prior to the release of the construction certificate.

**14 Stormwater Pipelines**

A longitudinal section of the proposed stormwater pipelines shall be provided in conjunction with the detailed drainage design for the site. The longitudinal section shall show calculated flows, velocity, pipe size/class, grade, inverts and existing/proposed surface levels. This requirement shall be reflected on the Construction Certificate plans and supporting documentation.

**Prior to the Commencement of Works**

**15 Subdivision Works**

All subdivision works must obtain a construction certificate prior to any commencement of works on site. Details of all subdivision engineering works are to be submitted to the Principal Certifier for approval.

The Principal Certifier must ensure that engineering plans are consistent with the stamped approved plans and that all subdivision works have been designed in accordance with conditions of this consent, Wollongong City Council's Subdivision Policy, AUSTRROAD Guidelines and best engineering practice.

**16 Sign – Supervisor Contact Details**

Before commencement of any work, a sign must be erected in a prominent, visible position:

- a stating that unauthorised entry to the work site is not permitted;
- b showing the name, address and telephone number of the Principal Certifier for the work; and
- c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

**17 Notification to Council of any Damage to Council's Infrastructure**

Council must be notified in the event of any existing damage to any of Council's infrastructure including, but not limited to the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development prior to the commencement of work. Adequate protection must be provided to Council infrastructure prior to work commencing and during the construction period. Any damage to Council's assets shall be restored in a satisfactory manner prior to the issue of the Occupation Certificate.

**18 Dilapidation Report**

The developer shall submit a Dilapidation Report recording the condition of the existing streetscape, street trees and adjoining reserve prior to work commencing and include a detailed description of elements and photographic record.

**19 Works in Road Reserve - Minor Works**

Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted and fees paid, five (5) days prior to the works within the road reserve are intended to commence. The Applicant is responsible for the restoration of all Council assets within the road reserve which are impacted by the works/occupation. Restoration must be in accordance with the following requirements:

- a All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
- b Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

20 **Subdivision Requirements**

Prior to the commencement of work, the person having the benefit of the Development Consent and the Construction Certificate must:

- a Notify Council in writing of their intention to commence works, this is to be submitted on Council's M10 form (at least two (2) days notice is required.).
- b Appoint a Principal Certifier (PC) and notify Council in writing of the appointment irrespective of whether Council or a Registered Certifier is appointed.

21 **Residential Building Work – Compliance with the Requirements of the Home Building Act 1989**

Building work involving residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifier for the development to which the work relates:

- a in the case of work to be done by a licensee under that Act:
  - i has been informed in writing of the licensee's name, contractor license number and contact address details (in the case of building work undertaken by a contractor under the Home Building Act 1989); and
  - ii is satisfied that the licensee has complied with the requirements of Part 6 of the Home Building Act 1989; or
- b in the case of work to be done by any other person:
  - i has been informed in writing of the persons name, contact address details and owner-builder permit number; and
  - ii has been given a declaration signed by the property owner(s) of the land that states that the reasonable market cost of the labour and materials involved in the work is less than the amount prescribed for the purposes of the definition of owner-builder work in Section 29 of the Home Building Act 1989 and is given appropriate information and declarations under paragraphs (a) and (b) whenever arrangements for the doing of the work are changed in such a manner as to render out of date any information or declaration previously given under either of those paragraphs.

**Note:** A certificate issued by an approved insurer under Part 6 of the Home Building Act 1989 that states that the specific person or licensed contractor is the holder of an insurance policy issued for the purposes of that Part of the Act is, for the purposes of this condition, sufficient evidence that the person has complied with the requirements of that Part of the Act.

22 **Appointment of Principal Certifier**

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

- a Appoint a Principal Certifier (PC) and notify Council in writing of the appointment irrespective of whether Council or a Registered Certifier is appointed; and
- b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifier must determine when inspections and compliance certificates are required.

23 The depth and location of all services (ie stormwater, gas, water, sewer, electricity, telephone, etc) must be ascertained and reflected on the plans and supporting documentation issued for construction.

24 **All-weather Access**

An all-weather stabilised access point must be provided to the site to prevent sediment leaving the site as a result of vehicular movement. Vehicular movement should be limited to this single accessway.

25 **Demolition Notification to Surrounding Residents**

Demolition must not commence unless at least two (2) days written notice has been given to adjoining residents of the date on which demolition works will commence.

26 **Hazardous Material Survey**

At least one week prior to demolition, the applicant must prepare a hazardous materials survey of the site and submit to Council a report of the results of the survey. **Hazardous materials** includes, but are not limited to, asbestos materials, synthetic mineral fibre, roof dust, PCB materials and lead based paint. The report must include at least the following information:

- a The location of hazardous materials throughout the site;
- b a description of the hazardous material;
- c the form in which the hazardous material is found, eg AC sheeting, transformers, contaminated soil, roof dust;
- d an estimation (where possible) of the quantity of each particular hazardous material by volume, number, surface area or weight;
- e a brief description of the method for removal, handling, on-site storage and transportation of the hazardous materials, and where appropriate, reference to relevant legislation, standards and guidelines;
- f identification of the disposal sites to which the hazardous materials will be taken.

27 **Demolition Works**

The demolition of the existing structures shown on the Site Demolition Plan dated 2 November 2020 prepared by Sustainable By Design shall be carried out in accordance with Australian Standard AS 2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the SafeWork NSW.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal Certifier. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

**During Demolition, Excavation or Construction**

28 **Flows from Adjoining Properties**

Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

29 **No Adverse Run-off Impacts on Adjoining Properties**

The design and construction of the development shall ensure there are no adverse effects to adjoining properties, as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

30 **Asbestos Clearance Certificate**

The internal floor area affected or likely to be affected, by scattering of asbestos pieces, particles or fibres during demolition or cutting into the building, is to be cleaned by vacuuming by a contractor approved by SafeWork NSW. A Clearance Certificate to certify that the site area is free of asbestos is to be submitted to Council by a licensed asbestos assessor within fourteen (14) days of the completion of renovations (or prior to the Occupation Certificate being issued).

31 **Asbestos Waste Collection, Transportation and Disposal**

Asbestos waste must be prepared, contained, transported and disposed of in accordance with SafeWork NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this type of waste. A receipt must be retained and submitted to the Principal Certifier, and a copy submitted to Council (in the event that Council is not the Principal Certifier), prior to commencement of the construction works.

32 **Lead Based Paint**

To prevent contamination of the soil and human health risks associated with lead dust, safeguards must be used when removing flaking paint or sanding paint surfaces that are suspected to contain lead.

33 **Restricted Hours of Construction Work**

The developer must not carry out any work, other than emergency procedures, to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday to Saturday, without the prior written consent of the Principal Certifier and Council. No work is permitted on public holidays or Sundays.

Allowable construction activity noise levels must be within the limits identified in the NSW EPA Interim Construction Noise Guidelines (ICNG) July 2009. ICNG are also applied for blasting, rock hammer and drilling, external plant and equipment.

<https://www.environment.nsw.gov.au/resources/noise/09265cng.pdf>

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

- a the variation in hours required (length of duration);
- b the reason for that variation (scope of works);
- c the type of work and machinery to be used;
- d method of neighbour notification;
- e supervisor contact number;
- f any proposed measures required to mitigate the impacts of the works.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent, including but not limited to, the Protection of the Environment Operations Act 1997.

34 **Provision of Waste Receptacle**

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

35 **Asbestos – Removal, Handling and Disposal Measures/Requirements Asbestos Removal by a Licensed Asbestos Removalist**

The removal of any asbestos material must be carried out by a licensed asbestos removalist if over 10 square metres in area of non-friable asbestos, or if any type of friable asbestos in strict accordance with SafeWork NSW requirements (<http://www.safework.nsw.gov.au>).

**Prior to the Issue of the Occupation Certificate**

36 **Existing Dwelling – Garage Conversion**

Prior to the issue of the Occupation Certificate evidence is to be provided to the Principal Certifier demonstrating the existing ground floor rumpus room has been converted to a garage, including sliding doors replaced with garage door.

**Prior to the Issue of the Subdivision Certificate**

37 **Certification – Stormwater Drainage**

The submission of written certification from a suitably qualified civil engineer stating that all stormwater drainage and related works have been constructed in accordance with the approved

Construction Certificate plans and the requirements of the Wollongong City Council Subdivision Policy.

38 **On-Site Detention - Structural Certification**

The submission of a certificate from a suitably qualified practising civil and/or structural engineer to the Principal Certifier is required prior to the issue of the Subdivision Certificate. This certification is required to verify the structural adequacy of the on-site detention facility and that the facility has been constructed in accordance with the approved Construction Certificate plans.

39 **88B Instrument – Restriction as to User – On-site Detention System**

The applicant must create a restriction on use over the site. The following terms must be included on an 88B instrument for approval of Council:

“The registered proprietor of the lot burdened must not erect or permit the erection of or permit to remain any dwelling house, building or other structure on the lot burdened unless the registered proprietor has constructed an on-site stormwater detention system on the said lot burdened, in accordance with the requirements of Wollongong City Council. The expression ‘on-site stormwater detention system’ shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council.”

The 88B instrument, showing the restriction must be submitted to the Principal Certifier for endorsement prior to the issue of the Subdivision Certificate.

40 **Works-As-Executed Plans**

The submission of two sets (minimum) of Works-As-Executed (WAE) plans to the Principal Certifier, prior to the release of the Subdivision Certificate. The Works-As-Executed plans shall be certified by a registered surveyor indicating that the survey is a true and accurate record of the works that have been constructed. The Works-As-Executed dimensions and levels must also be shown in red on a copy of the approved Construction Certificate plans. The Works-As-Executed (WAE) plans must include:

- a Final locations and levels for all works associated with the subdivision which also indicates the final volume of each on-site detention and subsoil drainage locations;
- b the location of the on-site detention identification plaque; and
- c the plan(s) must include but not be limited to the requirements stated in Chapter E14 of the Wollongong DCP 2009.

An electronic copy in CAD format is required to be submitted at the time of lodgement.

41 **Piped Natural Watercourse**

The piped natural watercourse must be chartered on the final subdivision plan. No easement is required over the watercourse.

42 **Existing Easements**

All existing easements must be acknowledged on the final subdivision plan.

43 **Existing Restriction as to Use**

All existing restriction on the use of land must be acknowledged on the final subdivision plan.

44 **Encroaching Pipes**

A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

For all drainage easements proposed over the subject lots, a works as executed/survey plan of all stormwater drainage within the site is to be submitted with the Subdivision Certificate Application to confirm this.

- 45     **Encroaching Services**  
A minimum one (1) metre wide easement for services must be created over any encroaching utility service.
- 46     **Section 88B Instrument**  
The submission of a Final Section 88B Instrument to Council/Principal Certifier, which incorporates (but is not necessarily limited to) the following restrictions, easements and covenants, where applicable:  
Easement for services;  
a     Easement for services;  
b     easement for drainage;  
c     restriction-as-to-user over the 'on-site stormwater detention system' which prohibits its alteration and/or removal;  
d     positive covenant that requires maintenance to be in accordance with the Construction Certificate approved On-Site Detention System and Maintenance Schedule – (Application number to be referenced);  
e     rights of access.
- 47     **Final Documentation Required Prior to Issue of Subdivision Certificate**  
The submission of the following information/documentation to the Principal Certifier, prior to the issue of a Subdivision Certificate:  
a     Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;  
b     Certificate of Practical completion from Wollongong City Council or a Registered Certifier (if applicable);  
c     Administration sheet prepared by a registered surveyor;  
d     Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;  
e     Final plan of Subdivision prepared by a registered surveyor plus one (1) equivalent size paper copies of the plan;  
f     Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water;  
g     Original Notification of Arrangement from an Endeavour Energy regarding the supply of underground electricity to the proposed allotments;  
h     Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development.  
i     Payment of section 94 fees (Pro rata) (if applicable).

<i>Conditions applicable to Phase 2 (Dual occupancy and Strata title subdivision)</i>
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## **General Matters**

- 48     **Tree Retention/Removal**  
The developer shall retain the existing trees indicated on the Plan Titled - Area of Assessment Illustrating Tree Location by Allied Trees contained within the Arborist Report, page 6, dated October 2019 consisting of tree numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.  
  
Any branch pruning, which has been given approval, must be carried out by a qualified arborist in accordance with Australian Standard AS 4373-2007.  
  
All tree protection measures are to be installed in accordance with Australian standard AS 4970-2009 Protection of Trees on development Sites.  
  
All recommendations in the Aboricultural Impact Assessment by Allied Tree Consultancy dated October 2019 page 13 are to be implemented including and not restricted to: remedial tree pruning, dead wood removal, fencing and signage, sediment buffer, stem protection, establishing tree protection zones and watering and root hormone application if required.

This consent permits the removal of trees numbered 11, 12, and 13 as indicated on the Plan Titled - Area of Assessment Illustrating Tree Location by Allied Tree Consultancy contained within the Arborist Report, page 6, dated October 2019. No other trees shall be removed without prior written approval of Council.

49 **Building Work - Compliance with the Building Code of Australia**

All building work must be carried out in compliance with the provisions of the Building Code of Australia.

50 **Construction Certificate**

A Construction Certificate must be obtained from Council or a Registered Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-147 of the Environmental Planning and Assessment Regulation 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

**Note:** The Certifier must cause notice of its determination to be given to the consent authority, and to the Council, by forwarding to it, within two (2) days after the date of the determination, the plans and documentation referred to in clause 142 (2) of the Environmental Planning and Assessment Regulation 2000.

51 **Mailboxes**

The developer must install mailboxes along street frontage of the property boundary in accordance with Australia Post Guidelines. Prominent house numbers are to be displayed, with a minimum number size of 150 mm in height for each number and letter in the alphabet.

52 **Occupation Certificate**

An Occupation Certificate must be issued by the Principal Certifier prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifier must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

**Prior to the Issue of the Construction Certificate**

53 **Flows from Adjoining Properties**

Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels. The above requirements must be clearly shown on construction certificate plans prior to the release of the construction certificate.

54 **Landscaping**

The submission of a final Landscape Plan will be required in accordance with the requirements of Wollongong City Council DCP 2009 Chapter E6 and the approved Landscape Plan (ie as part of this consent) for the approval by the Principal Certifier, prior to the release of the Construction Certificate.

55 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifier prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

56 The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifier prior to release of the Construction Certificate.

57 **Tree Protection and Management**

The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

- a Installation of Tree Protection Fencing - Protective fencing shall be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing must be indicated on the architectural and engineering plans to be submitted to the Principal Certifier prior to release of the Construction Certificate.
- b Mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch.
- c Irrigate: Areas within the Tree Protection Zone are to be regularly watered in accordance with the arborist's recommendations.

58 **Engineering Plans and Specifications - Retaining Wall Structures Greater than One (1) Metre**

The submission of engineering plans and supporting documentation of all proposed retaining walls greater than one (1) metre to the Principal Certifier for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

- a A plan of the wall showing location and proximity to property boundaries;
- b An elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
- c Details of fencing or handrails to be erected on top of the wall;
- d Sections of the wall showing wall and footing design, property boundaries, subsoil drainage and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall, subsoil drainage and footing structure must be contained wholly within the subject property;
- e The proposed method of subsurface and surface drainage, including water disposal. This is to include subsoil drainage connections to an inter-allotment drainage line or junction pit that discharges to the appropriate receiving system;
- f The assumed loading used by the engineer for the wall design.
- g Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

59 **Pier and Beam Footings Adjacent to Drainage**

Buildings and structures (including brick fences) adjacent to easement, common stormwater line and piped natural watercourse shall be supported on pier and beam footings outside the easement, common stormwater line and piped natural watercourse. The base of the piers shall be a minimum 900 mm below ground level and shall extend below the invert level of the drainage pipelines within the easement, common stormwater line and piped natural watercourse'. Structural Engineers details are required detailing the size and levels of the existing drainage pipelines and the design levels for the base of the piers adjacent to the easement, common stormwater line and piped natural watercourse'.

60 **Stormwater Drainage Design**

A detailed drainage design for the development must be submitted to and approved by the Principal Certifier prior to the release of the Construction Certificate. The detailed drainage design must satisfy the following requirements:

- a Be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, Subdivision Policy, conditions listed under this consent, and generally in accordance with the concept plan/s lodged for development approval, prepared by Westlake Punnett Civil and Structural Engineers, Reference No. 19258, dated 25 October 2019.
- b Include details of the method of stormwater disposal. Stormwater from the development must be piped to the inter allotment drainage system.

- c Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties. The plan must indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines.
- d Overflow paths shall be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land, as well as from any detention storage on the land. Blocked pipe situations with 1 in 100 year ARI events shall be incorporated in the design. Overflow paths shall also be provided in low points and depressions. Each overflow path shall be designed to ensure no entry of surface water flows into any building and no concentration of surface water flows onto any adjoining property. Details of each overflow path shall be shown on the detailed drainage design.

61 **Council Footpath Reserve Works – Driveways and Crossings**

All redundant vehicular crossings and laybacks rendered unnecessary by this development must be reconstructed to normal kerb and gutter or existing edge of carriageway treatment to match the existing. The verge from the back of kerb to the boundary must be restored and the area appropriately graded, topsoiled and turfed in a manner that conforms with adjoining road reserve. The area forward of the front boundary must be kept smooth, even and free from any trip hazards. All alterations of public infrastructure where necessary are at the developer's expense.

All new driveway laybacks and driveway crossings must be designed in accordance with Wollongong City Council Standards. Any redundant linemarking such as 'marked parking bays' are adjusted/removed at the developer's expense by a Council recognised contractor with the relevant insurances. Details and locations are to be shown on the Construction Certificate Plans.

62 **Dilapidation Survey**

A dilapidation survey and report shall be submitted to the Principal Certifier.

The dilapidation survey and report shall accurately reflect the condition of existing public and private infrastructure in the adjacent street(s) fronting the lots.

The report shall outline measures for the protection of existing public and private infrastructure during the works.

Any damage to infrastructure items and relics which is caused by the developer shall be repaired to the satisfaction of the Principal Certifier prior to the issue of a Certificate of Practical Completion for Subdivision works.

63 **Accessway Design**

A concrete accessway must be provided to the rear allotment to the following standards:

- a A minimum of 3.0 metre wide with a 1m turf strip either side;
- b A minimum of 150mm thick, with a minimum 25MPa compressive strength after 28 days; and
- c Reinforced with a minimum SL72 mesh from the kerb for the full length of the access corridor underlain by a minimum 75 mm thickness of DGS20 compacted to 95% of modified density.
- d All accessways must be designed so that they have a minimum clearance of 4.5 metres from any overhanging eaves and obstructions.
- e Provision for the utility servicing of the rear/battleaxe lots with the installation of service conduits or provision of a minimum 0.5 metre wide unformed strip.

Drainage over the accessway must be contained in a kerb or central dish and conveyed to a public road or piped drainage system. Details of the accessway, including long-section, cross-sections, typical cross-sections and the effect on adjoining land must be provided with the Construction Certificate.

- 64 **Erosion and Sediment Control Plan (ESCP) – Less than 2500m<sup>2</sup> Disturbance**  
An Erosion and Sediment Control Plan (ESCP) must be prepared by a suitably qualified person in accordance with the requirements set out in “Managing Urban Stormwater: Soils and Construction” NSW Dept of Housing, 4th Edition. The plan must be submitted to the Principal Certifier for approval prior to the issue of the Construction Certificate.
- 65 **Materials Schedule**  
Prior to the issue of the Construction Certificate a materials schedule is to be provided to the Principal Certifier, confirming the roof materials used are either non-reflective steel sheeting, concrete tiles, slate tiles or terracotta tiles only.
- 66 **Present Plans to Sydney Water**  
Approved plans must be submitted online using Sydney Water Tap, available through [www.sydneywater.com.au](http://www.sydneywater.com.au) to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.  
  
The Principal Certifier must ensure that Sydney Water has issued an approval receipt prior to the issue of a Construction Certificate.  
  
Visit [www.sydneywater.com.au](http://www.sydneywater.com.au) or telephone 13 20 92 for further information.
- 67 **Property Addressing Policy Compliance**  
Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure Systems & Support – Property Addressing** ([propertyaddressing@wollongong.nsw.gov.au](mailto:propertyaddressing@wollongong.nsw.gov.au)), for the site addressing prior to the issue of the construction certificate. Please allow up to 3-5 business days for a reply. Enquiries regarding property addressing may be made by calling 4227 8660.
- 68 **Provision of a Fire Hydrant**  
The provision of a fire hydrant in accordance with AS 2419.1 (2005) Fire Hydrant Installations and any requirements of the NSW Rural Fire Service and/or NSW Fire Brigades. The final details of the location of the fire hydrant shall be reflected on the Construction Certificate plans prior to the issue of the Construction Certificate.
- 69 **Development Contributions**  
Pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979 and the Wollongong City-Wide Development Contributions Plan (2018), a monetary contribution of \$6,050.00 (subject to indexation) must be paid to Council towards the provision of public amenities and services, prior to the release of any associated Construction Certificate.  
  
This amount has been calculated based on the estimated cost of development and the applicable percentage rate.  
  
The contribution amount will be subject to indexation until the date of payment. The formula for indexing the contribution is:  
  
**Contribution at time of payment = \$C x (CP2/CP1)**  
Where:  
  
    **\$C** is the original contribution as set out in the Consent  
  
    **CP1** is the Consumer Price Index; All Groups CPI; Sydney at the time the consent was issued  
  
    **CP2** is the Consumer Price Index; All Groups CPI; Sydney at the time of payment  
  
Details of CP1 and CP2 can be found in the Australian Bureau of Statistics website – Catalogue No. 6401.0 - Consumer Price Index, Australia.  
  
The following payment methods are available:

METHOD	HOW	PAYMENT TYPE
Online	<a href="http://www.wollongong.nsw.gov.au/applicationpayments">http://www.wollongong.nsw.gov.au/applicationpayments</a> Your Payment Reference: 1257399	<ul style="list-style-type: none"> <li>• Credit Card</li> </ul>
In Person	Wollongong City Council Administration Building - Customer Service Centre Ground Floor 41 Burelli Street, WOLLONGONG	<ul style="list-style-type: none"> <li>• Cash</li> <li>• Credit Card</li> <li>• Bank Cheque</li> </ul>
PLEASE MAKE BANK CHEQUE PAYABLE TO: Wollongong City Council (Personal or company cheques are not accepted)		

A copy of the Wollongong City-Wide Development Contributions Plan (2018) and accompanying Fact Sheet may be inspected or obtained from the Wollongong City Council Administration Building, 41 Burelli Street, Wollongong during business hours or on Council's web site at [www.wollongong.nsw.gov.au](http://www.wollongong.nsw.gov.au)

### Prior to the Commencement of Works

#### 70 **Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures**

Prior to the commencement of any demolition, excavation or construction works, the supervising arborist must certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations and relevant conditions of this consent.

#### 71 **Certification from Arborist - Adequate Protection of Trees to be Retained**

A qualified arborist is required to be engaged for the supervision of all on-site excavation or land clearing works. The submission of appropriate certification from the appointed arborist to the Principal Certifier is required which confirms that all trees and other vegetation to be retained are protected by fencing and other measures, prior to the commencement of any such excavation or land clearing works.

#### 72 **Works in Road Reserve - Minor Works**

Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted and fees paid, five (5) days prior to the works within the road reserve are intended to commence. The Applicant is responsible for the restoration of all Council assets within the road reserve which are impacted by the works/occupation. Restoration must be in accordance with the following requirements:

- All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
- Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

#### 73 **Erosion and Sediment Control Measures**

Erosion and sedimentation control measures are to be established in accordance with the requirements of the Erosion and Sediment Control Plan.

#### 74 **Residential Building Work – Compliance with the Requirements of the Home Building Act 1989**

Building work involving residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifier for the development to which the work relates:

- a in the case of work to be done by a licensee under that Act:
  - i has been informed in writing of the licensee's name, contractor license number and contact address details (in the case of building work undertaken by a contractor under the Home Building Act 1989); and
  - ii is satisfied that the licensee has complied with the requirements of Part 6 of the Home Building Act 1989; or
- b in the case of work to be done by any other person:
  - i has been informed in writing of the persons name, contact address details and owner-builder permit number; and
  - ii has been given a declaration signed by the property owner(s) of the land that states that the reasonable market cost of the labour and materials involved in the work is less than the amount prescribed for the purposes of the definition of owner-builder work in Section 29 of the Home Building Act 1989 and is given appropriate information and declarations under paragraphs (a) and (b) whenever arrangements for the doing of the work are changed in such a manner as to render out of date any information or declaration previously given under either of those paragraphs.

**Note:** A certificate issued by an approved insurer under Part 6 of the Home Building Act 1989 that states that the specific person or licensed contractor is the holder of an insurance policy issued for the purposes of that Part of the Act is, for the purposes of this condition, sufficient evidence that the person has complied with the requirements of that Part of the Act.

75 **Appointment of Principal Certifier**

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

- a Appoint a Principal Certifier (PC) and notify Council in writing of the appointment irrespective of whether Council or a Registered Certifier is appointed; and
- b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifier must determine when inspections and compliance certificates are required.

76 **Sign – Supervisor Contact Details**

Before commencement of any work, a sign must be erected in a prominent, visible position:

- a stating that unauthorised entry to the work site is not permitted;
- b showing the name, address and telephone number of the Principal Certifier for the work; and
- c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

77 **Temporary Toilet/Closet Facilities**

Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

- a a standard flushing toilet; and
- b connected to either:
  - i the Sydney Water Corporation Ltd sewerage system or
  - ii an accredited sewage management facility or
  - iii an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

78 The depth and location of all services (ie stormwater, gas, water, sewer, electricity, telephone, etc) must be ascertained and reflected on the plans and supporting documentation issued for construction.

79 **All-weather Access**

An all-weather stabilised access point must be provided to the site to prevent sediment leaving the site as a result of vehicular movement. Vehicular movement should be limited to this single accessway.

80 **Enclosure of the Site**

The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifier. No building work is to commence until the fence is erected.

81 **Temporary Sediment Fences**

Temporary sediment fences (eg haybales or geotextile fabric) must be installed on the site, prior to the commencement of any excavation, demolition or construction works in accordance with Council's guidelines. Upon completion of the development, sediment fencing is to remain until the site is grassed or alternatively, a two (2) metre strip of turf is provided along the perimeter of the site, particularly lower boundary areas.

**During Demolition, Excavation or Construction**

82 **Flows from Adjoining Properties**

Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

83 **No Adverse Run-off Impacts on Adjoining Properties**

The design and construction of the development shall ensure there are no adverse effects to adjoining properties, as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

84 **Copy of Consent to be in Possession of Person carrying out Tree Removal**

The Developer/ Applicant must ensure that any person carrying out tree removal is in possession of this development consent and/or the approved landscape plan, in respect to the trees which has/have been given approval to be removed in accordance with this consent.

85 **External Plant and Equipment**

External plant such as air conditioners, compressors, rainwater tank pumps and other machinery likely to emit noise shall be located so adjoining areas are not adversely affected.

86 **Protection of Public Places**

If the work involved in the erection or demolition of a building involves the enclosure of a public place or is likely to cause pedestrian/vehicular traffic in a public place to be obstructed or rendered inconvenient, or have the potential for conflict between pedestrians and vehicles:

- a A hoarding or fence must be erected between the work site and the public place;
- b an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place;
- c the work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in a public place;
- d safe pedestrian access must be maintained at all times;
- e any such hoarding, fence or awning is to be removed when the work has been completed.

87 **Restricted Hours of Construction Work**

The developer must not carry out any work, other than emergency procedures, to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday

to Saturday, without the prior written consent of the Principal Certifier and Council. No work is permitted on public holidays or Sundays.

Allowable construction activity noise levels must be within the limits identified in the NSW EPA Interim Construction Noise Guidelines (ICNG) July 2009. ICNG are also applied for blasting, rock hammer and drilling, external plant and equipment.

<https://www.environment.nsw.gov.au/resources/noise/09265cng.pdf>

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

- a the variation in hours required (length of duration);
- b the reason for that variation (scope of works);
- c the type of work and machinery to be used;
- d method of neighbour notification;
- e supervisor contact number;
- f any proposed measures required to mitigate the impacts of the works.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent, including but not limited to, the Protection of the Environment Operations Act 1997.

88 **Provision of Waste Receptacle**

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

89 **BASIX**

All the commitments listed in each relevant BASIX Certificate for the development must be fulfilled in accordance with Clause 97A(2) of the Environmental Planning & Assessment Regulation 2000.

A relevant BASIX Certificate means:

- A BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 4.55 of the Environmental Planning & Assessment Act 1979, a BASIX Certificate that is applicable to the development when this development consent is modified); or
- if a replacement BASIX Certificate accompanies any subsequent application for a construction certificate, the replacement BASIX Certificate; and
- BASIX Certificate has the meaning given to that term in the Environmental Planning & Assessment Regulation 2000.”

**Prior to the Issue of the Occupation Certificate**

90 **Retaining Wall Certification**

The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifier is required, prior to the issue of the Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifier.

91 **Deep Soil Zone**

The deep soil zone area as approved in the Landscape Concept Plan dated 13 August 2020 prepared by Mark Spence Environmental & Landscape Services is required to be installed as per that plan prior to the issue of any occupation certificate. The deep soil area is not to be built upon, above or below, thereby leaving an area of deep, soft soil for substantial deep-rooted vegetation, natural vegetation and natural drainage.

92     **BASIX**

An Occupation Certificate must not be issued unless accompanied by the BASIX Certificate applicable to the development. The Principal Certifier must not issue the final occupation certificate unless satisfied that selected commitments have been complied with as specified in the relevant BASIX Certificate. NOTE: Clause 154B of the Environmental Planning and Assessment Regulation 2000 provides for independent verification of compliance in relation to certain BASIX commitments.

**Prior to the Issue of the Subdivision Certificate**

93     **Occupation Certificate Prior to Subdivision Certificate**

An Occupation Certificate for the dwelling/s must be issued prior to the release of the Subdivision Certificate for the Strata Title subdivision. A copy of the Occupation Certificate shall be lodged to Council with the subdivision certificate application.

94     **Piped Natural Watercourse**

The piped natural watercourse must be chartered on the final subdivision plan. No easement is required over the watercourse.

95     **Existing Easements**

All existing easements must be acknowledged on the final subdivision plan.

96     **Existing Restriction as to Use**

All existing restriction on the use of land must be acknowledged on the final subdivision plan.

97     **Encroaching Pipes**

A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

For all drainage easements proposed over the subject lots, a works as executed/survey plan of all stormwater drainage within the site is to be submitted with the Subdivision Certificate Application to confirm this.

98     **Encroaching Services**

A minimum one (1) metre wide easement for services must be created over any encroaching utility service.

99     **Section 88B Instrument**

The submission of a Final Section 88B Instrument to Council/Principal Certifier, which incorporates (but is not necessarily limited to) the following restrictions, easements and covenants, where applicable:

Easement for services;

- a Easement for services;
- b easement for drainage;
- c restriction-as-to-user over the 'on-site stormwater detention system' which prohibits its alteration and/or removal;
- d positive covenant that requires maintenance to be in accordance with the Construction Certificate approved On-Site Detention System and Maintenance Schedule – (Application number to be referenced);
- e rights of access.

100    **Final Documentation Required Prior to Issue of Subdivision Certificate**

The submission of the following information/documentation to the Principal Certifier, prior to the issue of a Subdivision Certificate:

- a Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;
- b Certificate of Practical completion from Wollongong City Council or a Registered Certifier (if applicable);
- c Administration sheet prepared by a registered surveyor;

- d Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;
- e Final plan of Subdivision prepared by a registered surveyor plus one (1) equivalent size paper copies of the plan;
- f Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water;
- g Original Notification of Arrangement from an Endeavour Energy regarding the supply of underground electricity to the proposed allotments;
- h Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development.
- i Payment of section 94 fees (Pro rata) (if applicable).

### **Reasons**

The reasons for the imposition of the conditions are:

- 1 To minimise any likely adverse environmental impact of the proposed development.
- 2 To ensure the protection of the amenity and character of land adjoining and in the locality.
- 3 To ensure the proposed development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.
- 4 To ensure the development does not conflict with the public interest.



013

SRP Design & Drafting Pty Ltd  
14 Nioka Ave  
KEIRAVILLE NSW 2500

<b>APPLICATION</b>	<b>DA-2019/1268</b>
Determination	Refusal
Authority	Delegated Authority
Date	3 April 2020

## NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION

### Issued under Section 4.16 of the Environmental Planning and Assessment Act 1979

The development application described below has been determined:

<b>Description</b>	Residential - demolition of outbuildings, Subdivision - Torrens title - two (2) lots, alterations to existing dwelling and construction of attached dual occupancy and Subdivision - Strata title - two (2) lots of proposed Lot 212
<b>Location</b>	Lot 21 DP 524543 8A Kembla Street, BALGOWNIE NSW 2519

The application has been determined by **refusing of consent**.

The reasons for the refusal of the proposed development are:

- 1 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan 2009 with respect to the design, height and siting of the development responding adequately to its site context taking into account both natural and built form features of that locality, as required by clause 4.8 of Chapter B1 Residential Development.
- 2 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan No 2009 with respect to solar access to the clothesline of Unit 2, as required by clause 4.12 of Chapter B1 Residential Development.
- 3 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan 2009 with respect to the deep soil zone requirements of clause 4.23 of Chapter B1 Residential Development.
- 4 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is inconsistent with the provisions of Wollongong City Council's Development Control Plan No 2009 with respect to minimum 50% of the landscaped area of Lot 211 behind the building line, as required by Clause 4.5 of Chapter B1 Residential Development.
- 5 Pursuant to the provisions of Section 4.15(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development fails to satisfy the objectives of clause 4.1 Chapter B1 Residential Development Wollongong City Council's Development Control Plan No 2009.

REFUSAL

- 6 Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, the proposed development fails to demonstrate that the proposed right of carriageway between Lots 211 and 212 adequately encompasses the vehicle path between the allotments.
- 7 Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development would have an adverse impact upon the visual amenity of neighbouring properties as a result of the additional building height and bulk created by the habitable upper level in Units 1 and 2.
- 8 Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development is excessive in terms of the dual occupancy roof bulk and would adversely impact upon the amenity of neighbouring properties.
- 9 Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment Act 1979, it is considered that the proposed development would have an adverse impact upon the environment with respect to removal of trees 11 and 12 and fragmentation of the required deep soil zone. Trees 11 and 12 are proposed to be removed, despite the Allied Tree Consultancy report dated October 2019 concluding they are not be adversely impacted by the design. Removal of these trees contributes to loss of vegetation in an area appropriate for planting as a deep soil zone.
- 10 Pursuant to the provisions of Section 4.15 (1)(c) of the Environmental Planning and Assessment Act 1979, it is considered that the development site is not suitable for the proposed development due to proposed fragmentation of the deep soil zone, tree removal and upper level of the dual occupancy.
- 11 Pursuant to the provisions of Section 4.15 (1)(d) of the Environmental Planning and Assessment Act 1979, it is considered that having regard for public submissions, the development is unsuitable with respect to the right of carriageway, tree removal, upper level of the proposed dual occupancy and fragmentation of the deep soil zone.
- 12 Pursuant to the provisions of Section 4.15 (1)(e) of the Environmental Planning and Assessment Act 1979 it is considered that in the circumstances of the case, approval of the development would set an undesirable precedent for similar inappropriate development and is therefore not in the public interest.

## Notes

- 1 Section 8.7 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within six (6) months from the date of this letter.
- 2 Section 8.4 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right to request the consent authority to review the determination. The request for review of the determination must be made within six (6) months from the date of receipt of this notice. In the absence of a pending appeal before the Land and Environment Court, the request for review, and the review by Council, must all be completed within the abovementioned six (6) month time period. Accordingly, applicants are advised to provide Council with sufficient time to complete the review within this period, failing which the determination cannot be reviewed. The request must be accompanied by the fees set by the Environmental Planning and Assessment Regulation. A right of review of determination does not exist for a determination made in respect of a Designated Development.

This letter is authorised by

**Anne Starr**  
Senior Development Project Officer  
Wollongong City Council  
Telephone (02) 4227 7111

enc

ATTACHMENT 9

LEGEND	
AJ -	BRICK ARTICULATION JOINT
B.1200-	BENCH & LENGTH
C.T.-	COOKTOP
D.W.-	DISHWASHER
F.W. -	FLOOR WASTE
HWU-	HOT WATER UNIT
LOH-	LIFT OFF HINGES
MWS-	MICROWAVE SPACE
MH-	MANHOLE
MRLDR-	MIRROR SLIDING DOOR
REF-	REFRIGERATOR SPACE
R.H.-	RANGE HOOD
Ⓢ-	SMOKE DETECTOR
UPC-	UPRIGHT COOKER
UBO-	UNDERBENCH OVEN
V1200-	VANITY & LENGTH
W.O.-	WALL OVEN
W.M.-	WASHING MACHINE SPACE
1200 SQ. SET -	SQUARE SET OPENING AT 2100 HIGH.
75 S/D -	STEPDOWN IN SLAB

CONSTRUCTION NOTES

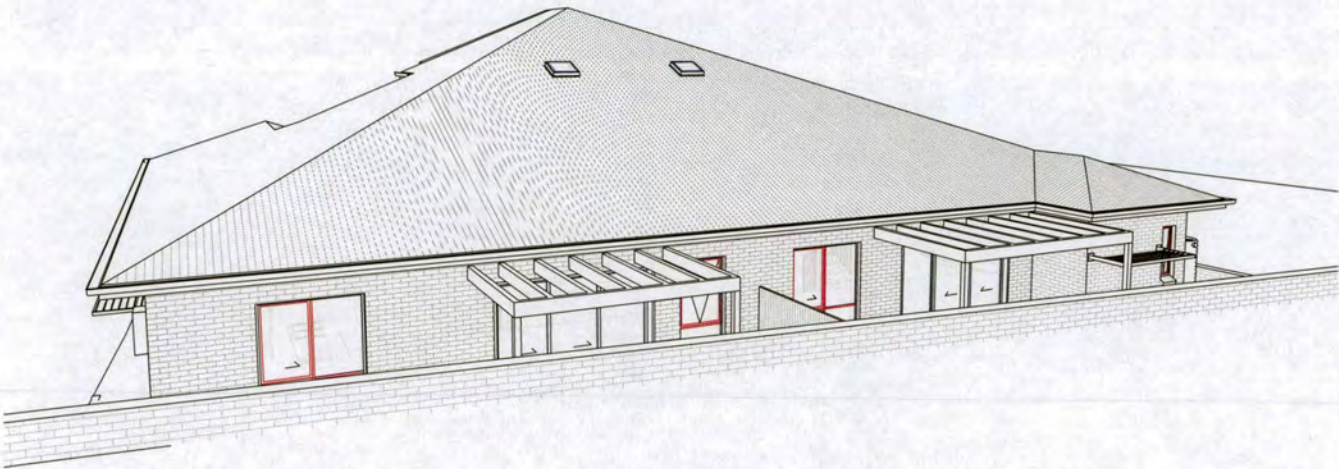
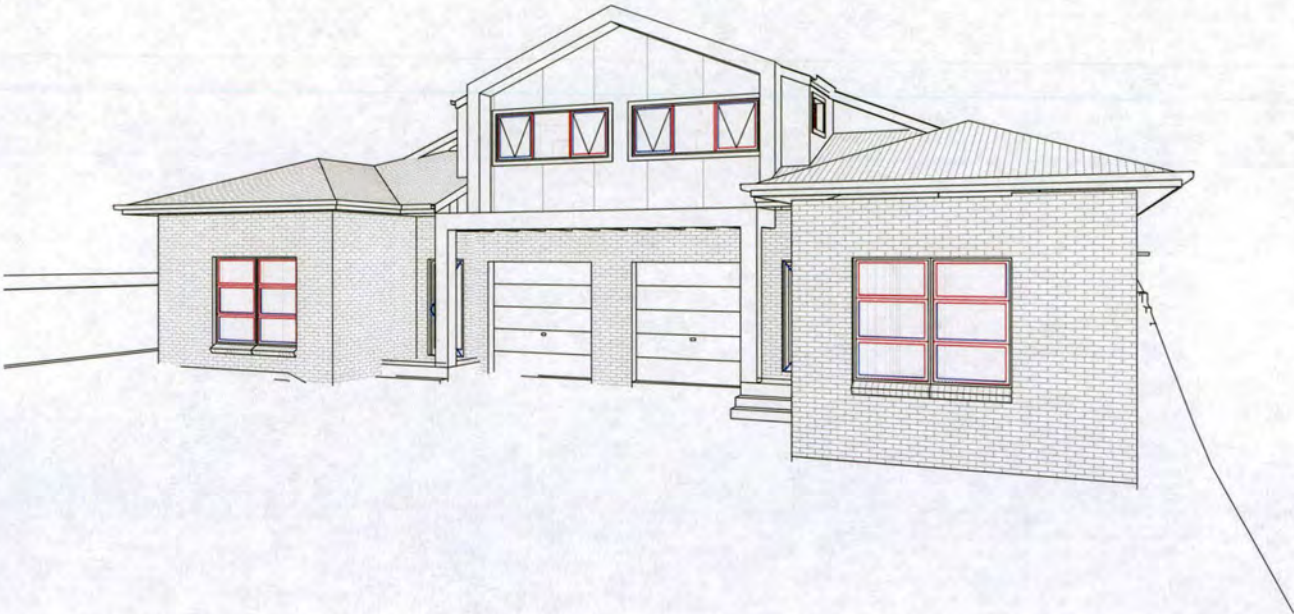
- WINDOWS TO HAVE A MINIMUM 3 BRICK COURSES OVER  
- RESTRICTIONS TO BE FITTED TO FIRST FLOOR OPENING WINDOWS WITH A SILL HEIGHT LESS THAN 1.7m ABOVE F.F.L. IN ACCORDANCE WITH BCA CLAUSE 3.9.2.5

BASIX COMMITMENTS - NORTHERN UNIT	
PROJECT TYPE	
PROJECT TYPE	SEPARATE DWELLING HOUSE
NO. BEDROOMS	3
SITE DETAILS	
SITE AREA (m²)	228
ROOF AREA (m²)	113
TOTAL REA OF GRASS LAWN (m²)	45
WATER COMMITMENTS	
FIXTURES	
SHOWER HEADS MIN. RATING	3 STAR
TOILET FLUSHING MIN. RATING	3 STAR
KITCHEN TAPS MIN. RATING	4 STAR
BASIN TAPS MIN. RATING	4 STAR
ALTERNATE WATER	
RAINWATER TANK MIN. SIZE	2000 LITRES
RUNOFF COLLECTION %	80
CONNECTED TO W.M. TAP	
CONNECTED TO W.C.'S	YES
CONNECTED TO GARDEN TAP	YES
THERMAL COMFORT COMMITMENTS	
CONSTRUCTION	
CONC. SLAB ON GROUND	NIL
WALL INSULATION	R2
CEILING INSULATION	3.5
ROOF COLOUR	MEDIUM
ROOF INSULATION	FOIL/SARKING
WINDOWS GLAZED DOORS AND SKYLIGHTS	
WINDOW GLAZED DOOR NO.	STD ALUMINIUM
ENERGY COMMITMENTS	
HOT WATER	
Gas INST	5 STAR
VENTILATION	
EXHUAUST FANS TO BE INSTALLED;	
AT LEAST ONE BATHROOM	NOT DUCTED
KITCHEN	DUCTED
L'DRY	NATURAL VENTILATION ONLY
ARTIFICIAL LIGHTING	
LED OR FLOURO LIGHTS TO;	
AT LEAST 3 BEDROOMS, 1 LIVING AREAS/ DINING ROOMS	
THE KITCHEN	
NATURAL LIGHT	
WINDOWS AND / OR SKYLIGHT TO;	
2 BATHROOMS / TIOLETS	
OTHER	
Outdoor clothes line	
Well Ventilated fridge space	
GAS COOKTOP / ELECTRIC OVEN	

BASIX COMMITMENTS - SOUTHERN UNIT	
PROJECT TYPE	
PROJECT TYPE	SEPARATE DWELLING HOUSE
NO. BEDROOMS	3
SITE DETAILS	
SITE AREA (m²)	250
ROOF AREA (m²)	113
TOTAL REA OF GRASS LAWN (m²)	50
WATER COMMITMENTS	
FIXTURES	
SHOWER HEADS MIN. RATING	3 STAR
TOILET FLUSHING MIN. RATING	3 STAR
KITCHEN TAPS MIN. RATING	4 STAR
BASIN TAPS MIN. RATING	4 STAR
ALTERNATE WATER	
RAINWATER TANK MIN. SIZE	2000 LITRES
RUNOFF COLLECTION %	80
CONNECTED TO W.M. TAP	
CONNECTED TO W.C.'S	YES
CONNECTED TO GARDEN TAP	YES
THERMAL COMFORT COMMITMENTS	
CONSTRUCTION	
CONC. SLAB ON GROUND	NIL
WALL INSULATION	R2
CEILING INSULATION	3.5
ROOF COLOUR	MEDIUM
ROOF INSULATION	FOIL/SARKING
WINDOWS GLAZED DOORS AND SKYLIGHTS	
WINDOW GLAZED DOOR NO.	STD ALUMINIUM
ENERGY COMMITMENTS	
HOT WATER	
Gas INST	5 STAR
VENTILATION	
EXHUAUST FANS TO BE INSTALLED;	
AT LEAST ONE BATHROOM	NOT DUCTED
KITCHEN	DUCTED
L'DRY	NATURAL VENTILATION ONLY
ARTIFICIAL LIGHTING	
LED OR FLOURO LIGHTS TO;	
AT LEAST 3 BEDROOMS, 1 LIVING AREAS/ DINING ROOMS	
THE KITCHEN	
NATURAL LIGHT	
WINDOWS AND / OR SKYLIGHT TO;	
2 BATHROOMS / TIOLETS	
OTHER	
Outdoor clothes line	
Well Ventilated fridge space	
GAS COOKTOP / ELECTRIC OVEN	

WOLLONGONG CITY COUNCIL  
REFUSAL OF CONSENT

Development Application 2019/1268  
Dated: 3/4/20



REV	DATE	AMENDMENTS	BY
K	18.12.19	REVISED DA PLANS	SBD
J	16.09.19	DA PLANS	SBD
I	27.08.19	REVISED SKETCH PLANS	SBD
H	19.07.19	REVISED SKETCH PLANS	SBD
G	05.07.19	REVISED SKETCH PLANS	SBD
F			SBD
E			SBD
D			SBD
C			SBD
B			SBD
A			SBD

COVER



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Wollongong NSW 2500  
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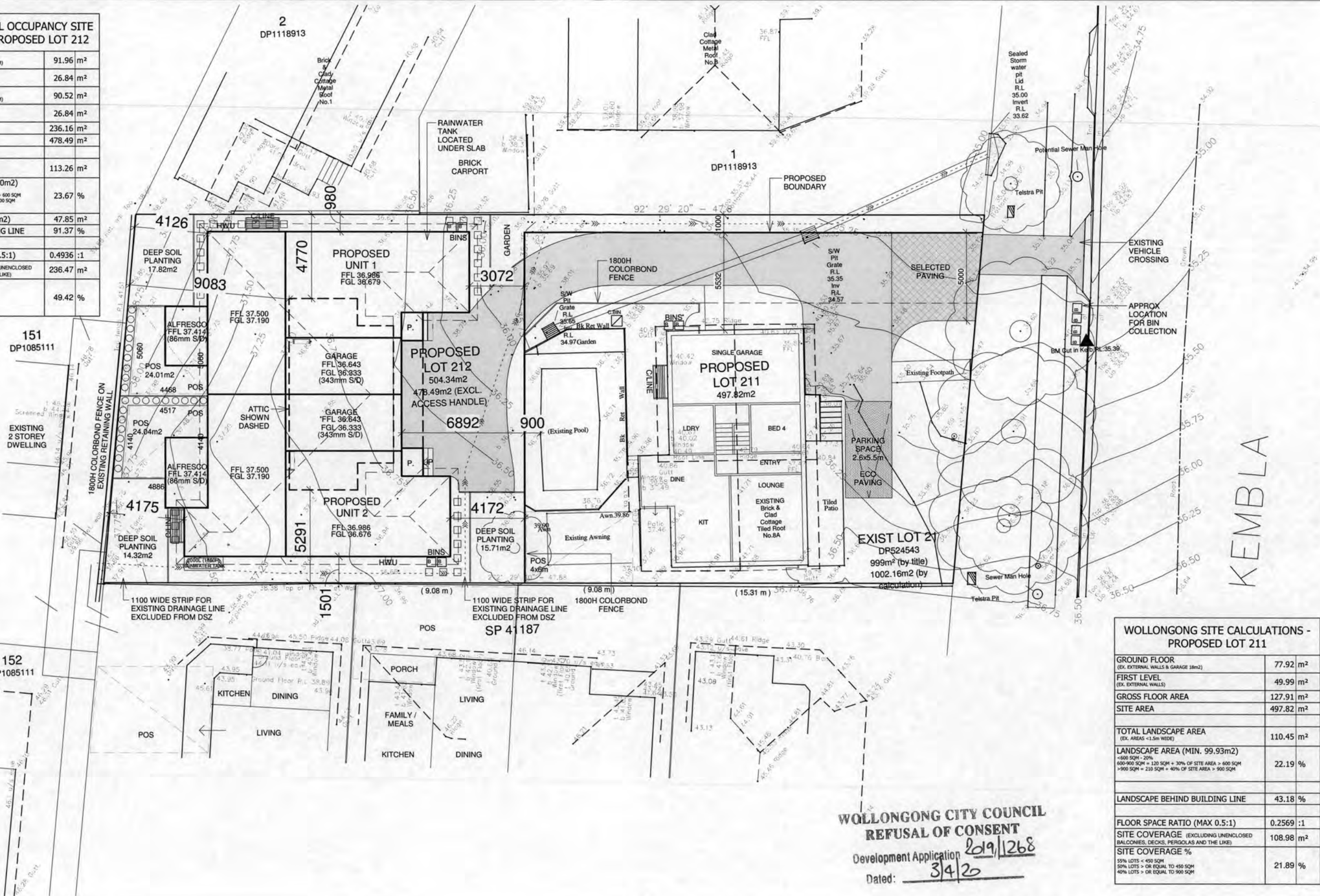
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WOLLONGONG DUAL OCCUPANCY SITE CALCULATIONS - PROPOSED LOT 212	
UNIT 1 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	91.96 m <sup>2</sup>
UNIT 1 ROOF SPACE (EX. EXTERNAL WALLS)	26.84 m <sup>2</sup>
UNIT 2 GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE UP TO 18 SQ.M)	90.52 m <sup>2</sup>
UNIT 2 ROOF SPACE (EX. EXTERNAL WALLS)	26.84 m <sup>2</sup>
GROSS FLOOR AREA	236.16 m <sup>2</sup>
SITE AREA	478.49 m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	113.26 m <sup>2</sup>
LANDSCAPE AREA (MIN. 95.70m2) 600-900 SQM = 120 SQM + 30% OF SITE AREA > 600 SQM >900 SQM = 210 SQM + 40% OF SITE AREA > 900 SQM	23.67 %
DEEP SOIL ZONE (MIN. 47.5m2)	47.85 m <sup>2</sup>
LANDSCAPE BEHIND BUILDING LINE	91.37 %
FLOOR SPACE RATIO (MAX 0.5:1)	0.4936 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	236.47 m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	49.42 %



WOLLONGONG SITE CALCULATIONS - PROPOSED LOT 211	
GROUND FLOOR (EX. EXTERNAL WALLS & GARAGE 18m2)	77.92 m <sup>2</sup>
FIRST LEVEL (EX. EXTERNAL WALLS)	49.99 m <sup>2</sup>
GROSS FLOOR AREA	127.91 m <sup>2</sup>
SITE AREA	497.82 m <sup>2</sup>
TOTAL LANDSCAPE AREA (EX. AREAS <1.5m WIDE)	110.45 m <sup>2</sup>
LANDSCAPE AREA (MIN. 99.93m2) 600-900 SQM = 120 SQM + 30% OF SITE AREA > 600 SQM >900 SQM = 210 SQM + 40% OF SITE AREA > 900 SQM	22.19 %
LANDSCAPE BEHIND BUILDING LINE	43.18 %
FLOOR SPACE RATIO (MAX 0.5:1)	0.2569 :1
SITE COVERAGE (EXCLUDING UNENCLOSED BALCONIES, DECKS, PERGOLAS AND THE LIKE)	108.98 m <sup>2</sup>
SITE COVERAGE % 55% LOTS < 450 SQM 50% LOTS > OR EQUAL TO 450 SQM 40% LOTS > OR EQUAL TO 900 SQM	21.89 %

WOLLONGONG CITY COUNCIL  
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Development Application 2019/1268  
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## SITE PLAN



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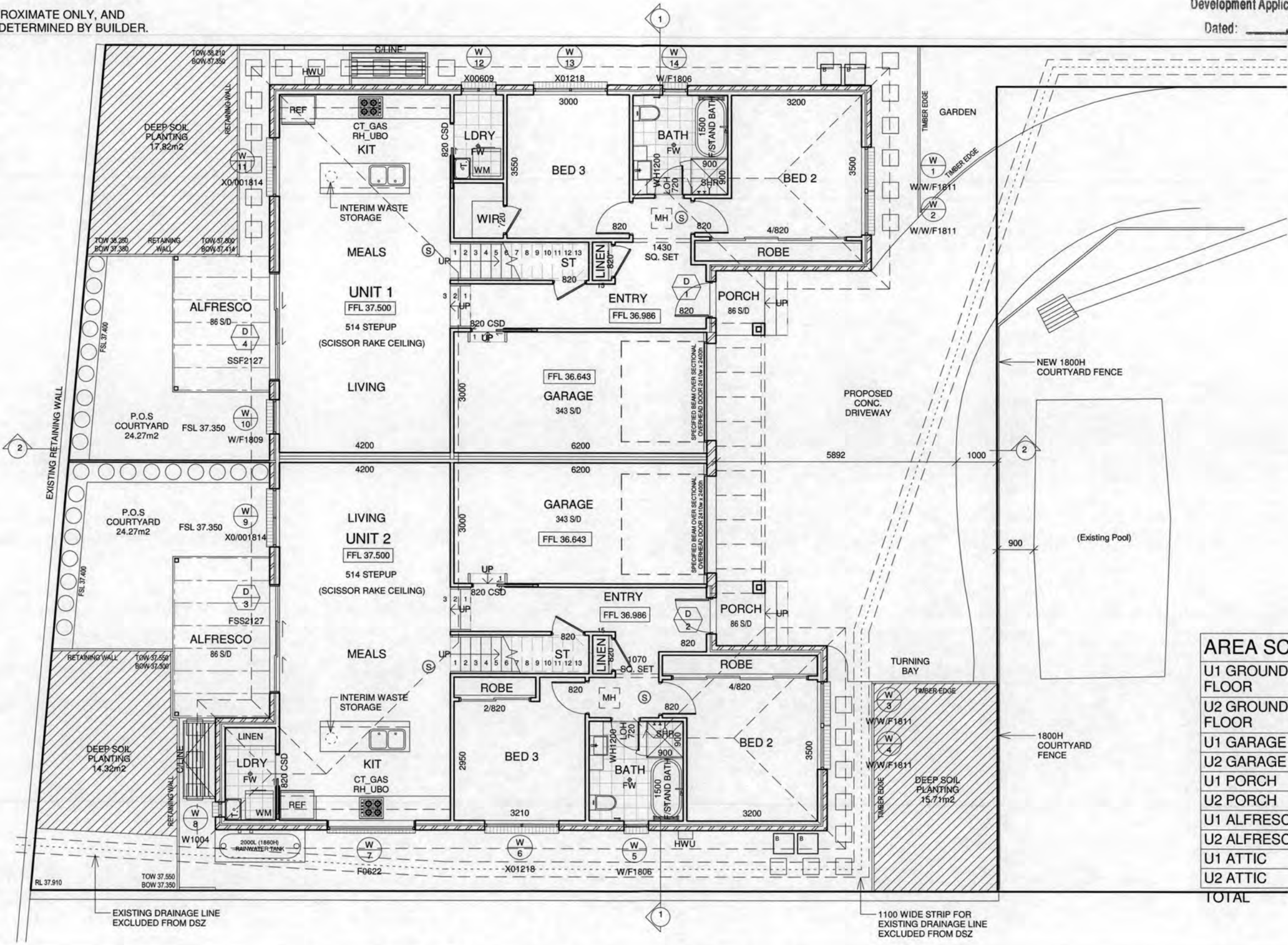
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GENERAL NOTES

- ALL CONSTRUCTION TO CONFORM TO B.C.A AND AUSTRALIAN STANDARDS.
- WRITTEN DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED.
- LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND SUBJECT TO SITE CONDITIONS AS DETERMINED BY BUILDER.

- ⊙ SMOKE DETECTOR
- ⊕ EXHAUST FAN
- LOH LIFT OFF HINGHES

WOLLONGONG CITY COUNCIL  
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Dated: 3/4/20



AREA SCHEDULE	
U1 GROUND FLOOR	98.80 m <sup>2</sup>
U2 GROUND FLOOR	97.47 m <sup>2</sup>
U1 GARAGE	20.09 m <sup>2</sup>
U2 GARAGE	20.09 m <sup>2</sup>
U1 PORCH	1.92 m <sup>2</sup>
U2 PORCH	1.92 m <sup>2</sup>
U1 ALFRESCO	9.60 m <sup>2</sup>
U2 ALFRESCO	9.60 m <sup>2</sup>
U1 ATTIC	28.84 m <sup>2</sup>
U2 ATTIC	28.84 m <sup>2</sup>
TOTAL	317.17 m <sup>2</sup>

GROUND FLOOR



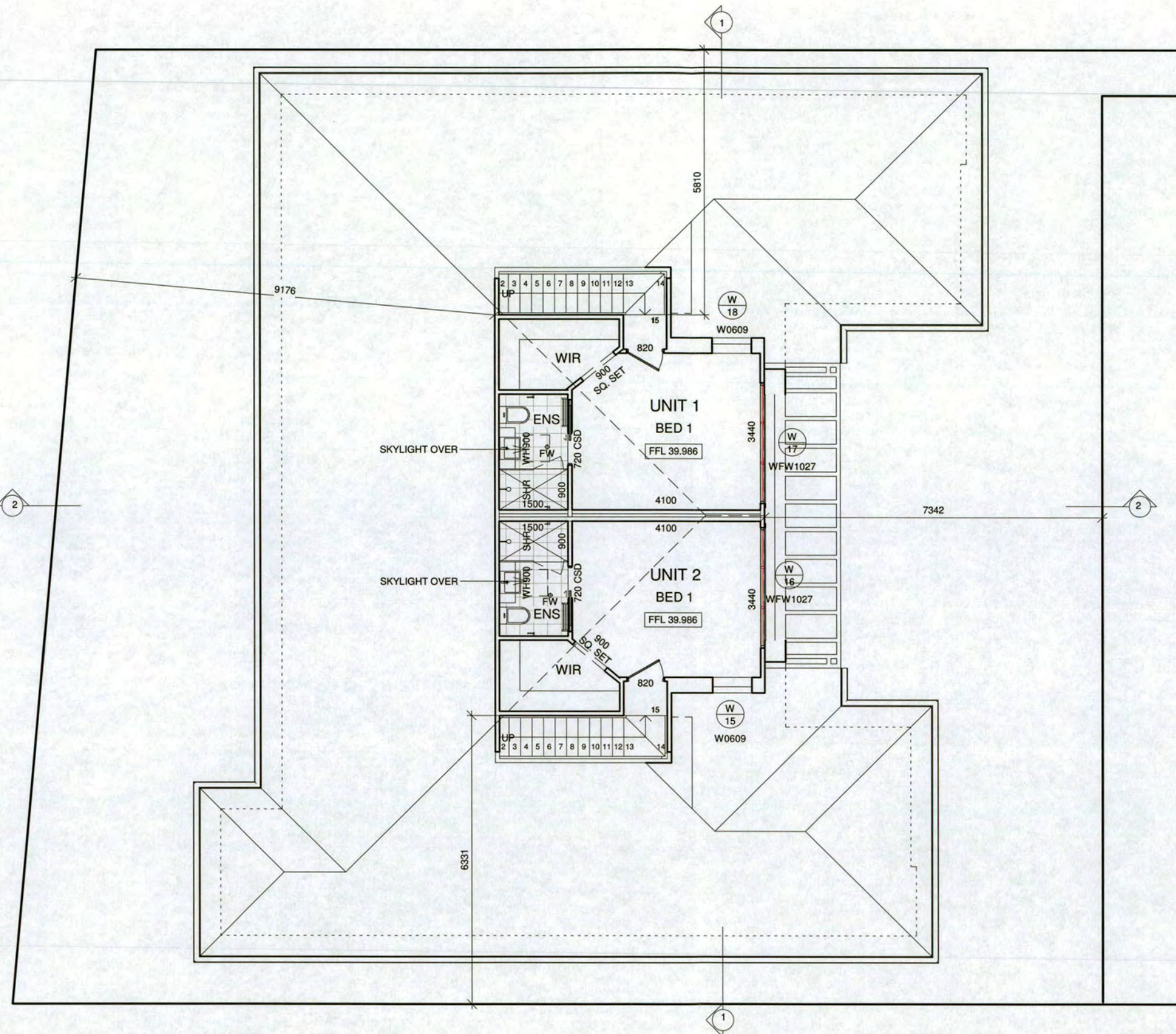
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FIRST FLOOR



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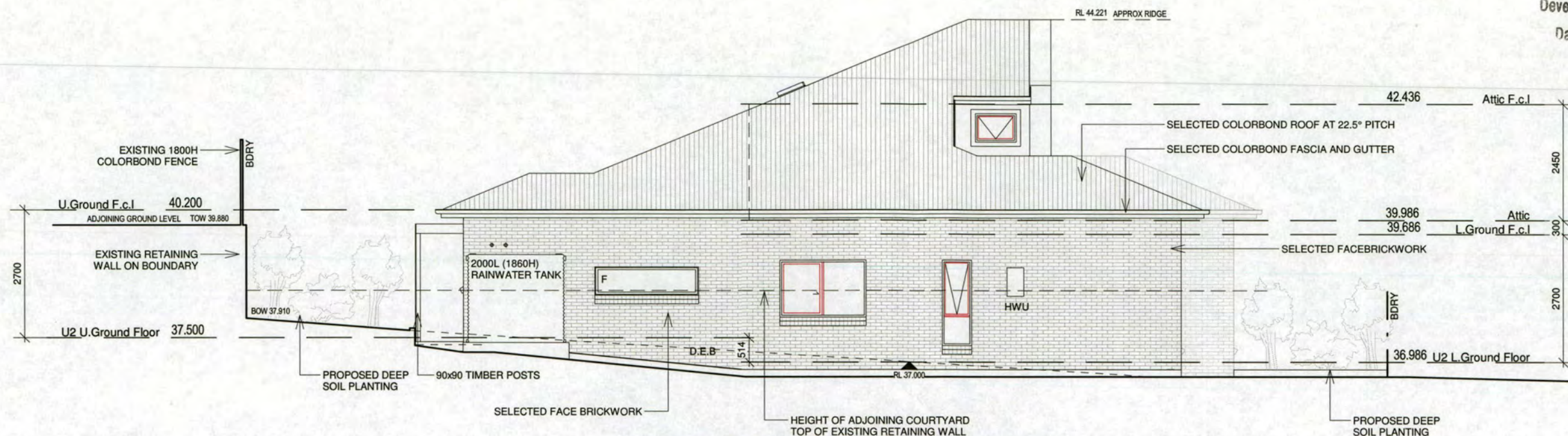
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**SOUTHERN ELEVATION**



**WESTERN ELEVATION**

ELEVATION 2



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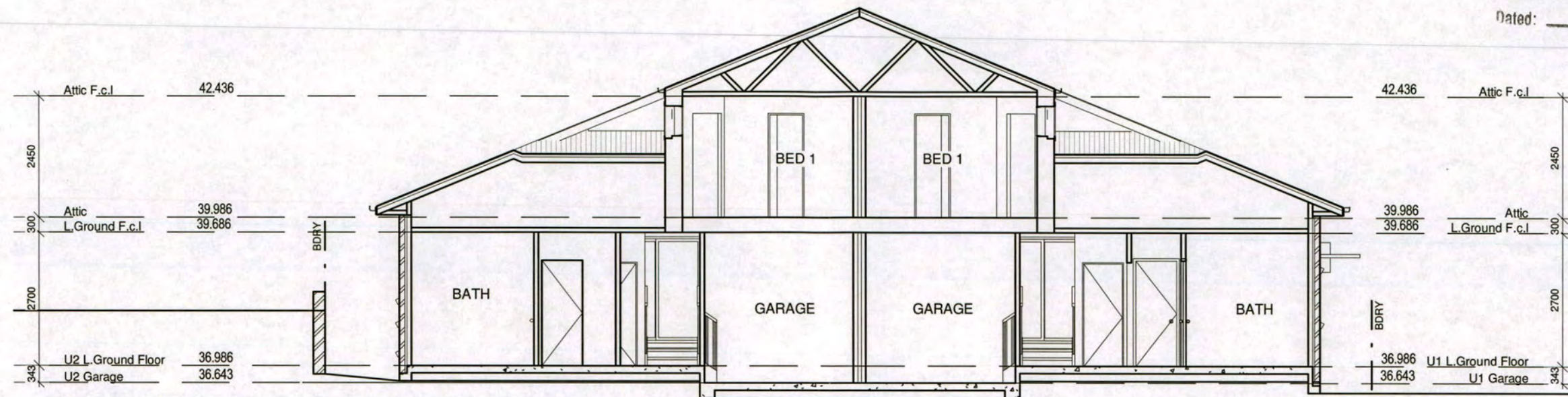
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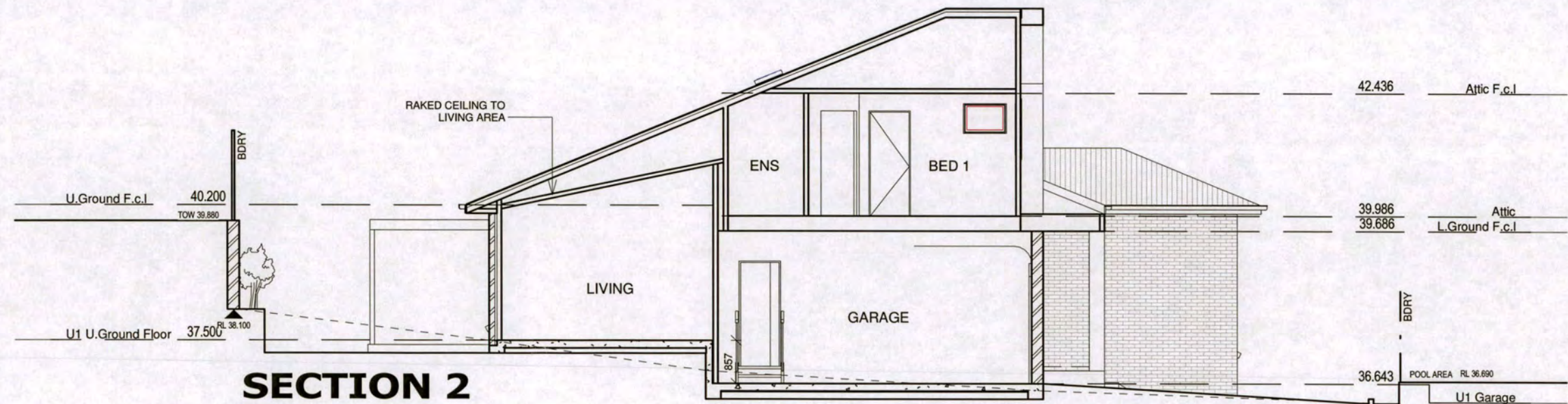
**SECTION 1**

**WINDOW SCHEDULE**

No.	HEIGHT	WIDTH	TYPE	COMMENTS
1	1800	1085	DOUBLE HUNG	
2	1800	1085	DOUBLE HUNG	
3	1800	1085	DOUBLE HUNG	
4	1800	1085	DOUBLE HUNG	
5	1800	610	AWNING	
6	1200	1810	SLIDING	
7	600	2170	FIXED	
8	1030	370	AWNING	
9	1800	1450	SLIDING	
10	1800	850	AWNING	
11	1800	1450	SLIDING	
12	600	850	SLIDING	
13	1200	1810	SLIDING	
14	1800	610	AWNING	
15	600	850	AWNING	
16	1030	2650	AWNING	
17	1030	2650	AWNING	
18	600	850	AWNING	
19	550	550	SKYLIGHT	
20	550	550	SKYLIGHT	

**DOOR SCHEDULE**

No.	HEIGHT	WIDTH	TYPE	COMMENTS
1	2100	820	FRONT ENTRY DOOR	
2	2100	820	FRONT ENTRY DOOR	
3	2100	2688		
4	2100	2688	GLASS STACKER DOOR	



**SECTION 2**

**SECTION**



Sustainable By Design

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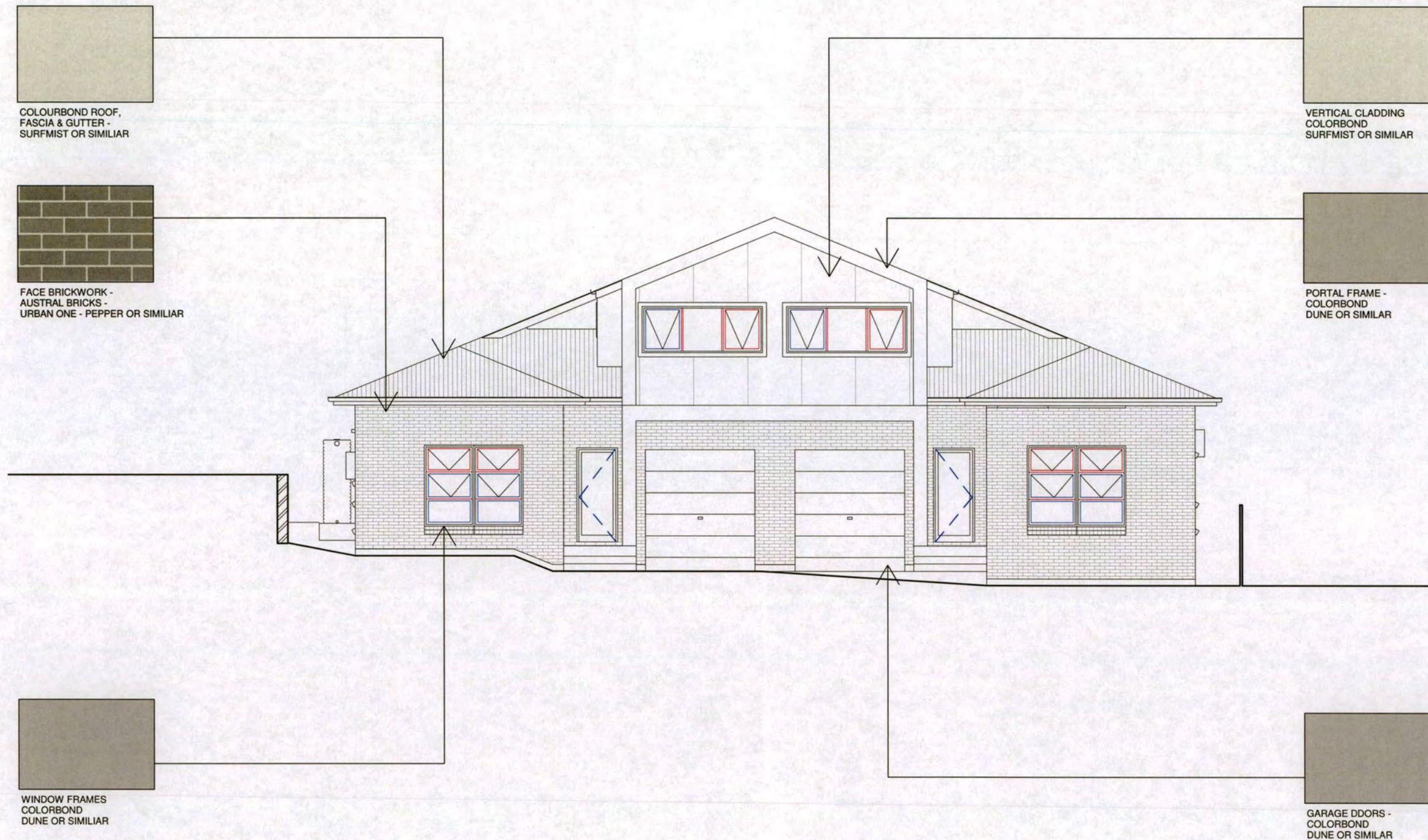
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## COLOUR SELECTION PLAN



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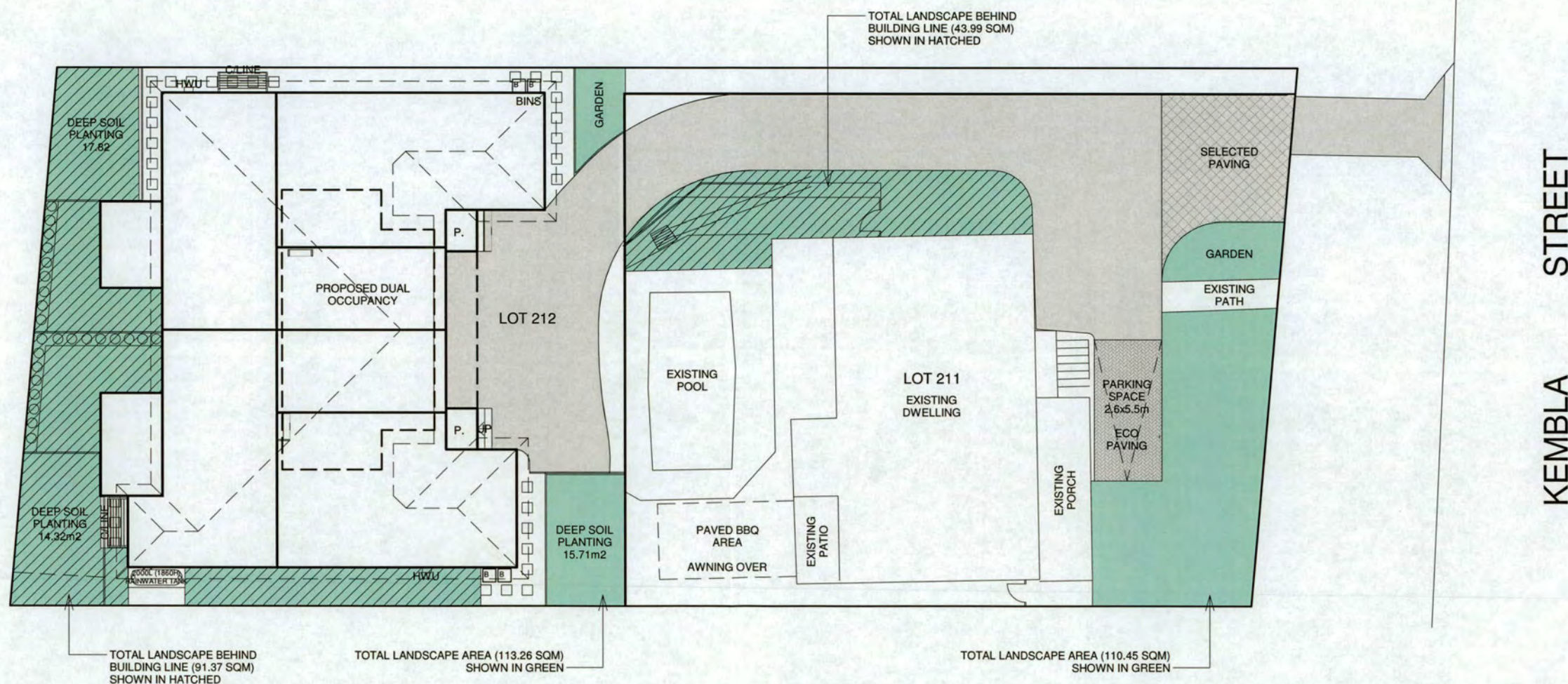
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SCALE: 1 : 100 @ A3 JOB NO: 021KEM

ISSUE  
**K**  
SHEET NO.  
**10**

ISSUE	K
SHEET NO.	23

LANDSCAPE CALCULATIONS - LOT 212		SITE AREA = 478.49 SQM		PROPOSED DUAL OCCUPANCY			
MIN. LANDSCAPE AREA		= 95.70 SQM		MIN DEEP SOIL ZONE (50%)		= 47.85 SQM	
< 600 SQM - 20%							
600-900 SQM = 120 SQM + 30% OF SITE AREA		> 600 SQM		PROPOSED DEEP SOIL ZONE		= 47.88 SQM or 50%	
> 900 SQM = 210 SQM + 40% OF SITE AREA		> 900 SQM					
PROPOSED TOTAL LANDSCAPE AREA		= 113.26 SQM or 23.67%					
(EX. AREAS <1.5m WIDE)							
PROPOSED TOTAL LANDSCAPE BEHIND BUILDING LINE		= 91.37 SQM or 80.67%					
LANDSCAPE CALCULATIONS - LOT 211		SITE AREA = 497.82 SQM		EXISTING DWELLING			
MIN. LANDSCAPE AREA		= 99.56 SQM					
< 600 SQM - 20%							
600-900 SQM = 120 SQM + 30% OF SITE AREA		> 600 SQM					
> 900 SQM = 210 SQM + 40% OF SITE AREA		> 900 SQM					
PROPOSED TOTAL LANDSCAPE AREA		= 110.45 SQM or 22.19%					
(EX. AREAS <1.5m WIDE)							
PROPOSED TOTAL LANDSCAPE BEHIND BUILDING LINE		= 42.99 SQM or 43.18%					

WOLLONGONG CITY COUNCIL  
REFUSAL OF CONSENT  
Development Application 2019/1268  
Dated: 3/4/20



## LANDSCAPE CONCEPT



Suite 14, 41 Market Street  
Wollongong NSW 2500  
PH: 42283664

CLIENT  
SAFFIOTI  
SITE  
LOT 21 D.P. 524543  
8A KEMBLA STREET  
BALGOWNIE 2519

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DRAWN: S.R.P DATE: 18.12.19  
SCALE: 1:200 @ A3 JOB NO: 021KEM

ISSUE  
K  
SHEET NO.  
24